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THE PRESS,

AND TO THE FRIENDS OF PHYSICAL AND MORAL REGENERATION,

THESE LECTURES,

ON THE ACTUAL CONDITION OF THE METROPOLITAN GRAVE-YARDS, CONTAINING
AN INCONTROVERTIBLE STATEMENT OF FACTS, AND A DEMONSTRATION
OF THE FIRST PRINCIPLES OF TRUE SANITARY REFORM,
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THE AUTHOR.

PREFACE.

In offering to the public a new edition of these Lectures, the author may be permitted to refer, with some degree of pride and satisfaction, to the public appreciation of his past labours in the great cause upon which he has been engaged.

The two sanitary measures passed during the last session of Parliament have very imperfectly recognised the vast moral and physical importance of the subject herein discussed. The City of London Sewers Act, and the Bill for Promoting the Public Health, more especially the former, have, in the year 1848, legalised a practice which, although introduced into England more than 1000 years ago, was sanctioned and submitted to, only, because the public mind was not sufficiently informed upon its physical and moral enormities. Ignorance, superstition, self-interest, and prejudice are the great enemies of human progress.

Thanks to the unsolicited assistance and co-operation of the press, for which the author desires to express his most grateful acknowledgments, evidences of sanitary mischiefs, resulting from the practice of intramural burial, too numerous to be denied, and too overwhelming to be confuted, have carried conviction to the minds of many who had never, perhaps, previously bestowed a thought on the subject. If the vast and important questions which these pages discuss—if the facts collected at the expense of time and comfort, at great personal risk, and considerable outlay—have not yet awakened the apprehensions and aroused the sympathies of his countrymen to the extent the author anticipated, he has at least the satisfaction of knowing that his labours have not been wholly unproductive of beneficial results.

"I scarcely know of any subject," said the great Clarkson, in recounting the history of the abolition of the slave trade, "the contemplation of which is more pleasing than that of the correction or of the removal of any of the acknowledged evils of life; for while we PREFACE.

rejoice to think that the sufferings of our fellow creatures have been thus, in any instance, relieved, we must rejoice equally to think that our own moral condition must have been necessarily improved by the change."

In moral dignity, the question discussed in these pages may not equal that great cause of human right and liberty for which Thomas Clarkson fought and conquered; but, in the more practical consideration of the physical ills inflicted on suffering humanity, under the hideous system here exposed, it is not inferior in importance, or less worthy of the regard of the philanthropist and statesman.

A settled conviction that the science of medicine will never occupy its true—its noblest position—until its first object be the PRE-VENTION rather than the cure of disease, has, during many years, induced the writer to devote himself to the removal of causes rather than to the treatment of symptoms. M. Pariset, an unquestionable authority, has said that with pure air and water, with healthy food, in moderate proportions, none of those singular mutations productive of death in man and animals could exist. The same author states that, as the result of his long observation in the Levant, he is of opinion, that the putrefaction of animal, and particularly of human remains, is the cause of the plague. He asks why it is that Egypt, formerly so healthy, has now become a sojourn of ruin and death. He says it is entirely due to the emanations from the human and animal corpses.

Mr. Pariset counted in Grand Cairo alone 35 burying places. In London there are upwards of 250, and, in by far the larger majority of instances there is an entire absence of every sanitary precaution; whilst in others the disturbance and mutilation of the dead are systematically and profitably continued.

If, in endeavouring to make a difficult, yet very simple question easy of comprehension, the writer may seem to have been overzealous in drawing his conclusions, he knows that they are based on facts most carefully gathered and conscientiously detailed.

He ventures to predict that, ere long, the public mind, fully awakened to the horrors and dangers of the practice against which he has felt it to be his duty to protest, will join in the conclusion that it is neither just, nor equitable, nor wise, to poison earth, air, and water.

The mischiefs resulting to the public health are so clearly traceable to intramural interment, and so pressing as to demand that a

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question, involving the disposal of the remains of some 600,000 bodies, the annual mortality of the United Kingdom, shall no longer be treated with that dubious policy, which, by giving a legislative sanction to a wretched and destructive system, emboldens the wrong doer, and sacrifices the innocent, the incredulous, and the unreflecting.

The fear of death makes cowards of us all, and weakens or effaces its salutary admonitions—

"The grave—dread thing!
Men shiver when thou'rt nam'd:
Nature appall'd, shakes off her wonted firmness."

Habit, however, has permitted and perpetuated a practice only because its dangers and enormities have been but imperfectly understood, and therefore not sufficiently appreciated.

If the author has succeeded in exciting attention to this all-important, but hitherto neglected, subject, he trusts that, by the awakened convictions and united efforts of his fellow citizens, a practice which not only constantly imperils human life, impairs and destroys individual vitality, lowers—and, as has been demonstrated, prostrates,—the physical and moral condition of empires, may be thought worthy of a higher place in the scale of admitted mischiefs which our legislators are only just beginning to appreciate and to remedy.

FIRST OF A SERIES

OF

LECTURES

ON THE

METROPOLITAN GRAVE-YARDS.

LADIES AND GENTLEMEN.

We have met together this evening for the purpose of discussing the moral and physical effects arising from the practice of interring the DEAD in the midst of the LIVING.

That such a practice inevitably leads to results which inflict deep injury on public morals, and are highly detrimental to the HEALTH of the community, it will be my duty to demonstrate.

It seems strange that, in the middle of the nineteenth century—in the capital of the civilised world—in a country distinguished for its respect for public decency, for high moral feeling, and, above all, for its profession of Christian principles—any necessity should exist for an appeal on the question which we are about to discuss. Yet such is the fact. Scarcely a day passes without our witnessing the most revolting violations of the sanctuaries of the dead, whilst the hundreds of burying-places of this huge Metropolis, permitted to exist in the midst of its living population, are so many centres of infection, laboratories of malaria, whence issue most offensive and deadly compounds, the gaseous products of human putrefaction, the food, if not the principles, of malignant disease and premature death.

If I establish, as I believe I shall, these propositions, we are bound by a double motive to use every exertion for the removal of this dark stain—this foul blot—from our national character. As Christians, we are called upon to crush, and that for ever, a system that necessarily entails and imposes the daily execution of deeds, from the perpetration of which barbarians would recoil with abhorrence. As men—as members of a civilised community—it is our duty to remove constantly increasing causes of discomfort, disease, and frequently inconceivable suffering, existing more espe-

cially among our poorer brethren, whose poverty, and whose avocations, too frequently compel their residence in localities where the evil is most prominent, where, in a word, the burying-places, public and private, are most numerous and most dangerously overcharged. During many years I have employed every legitimate means for the purpose of effecting this great MORAL and SANITARY reformation; and this, my first effort in another direction, has been cheerfully entered upon at the request of the Committee of this Institution, in humble but full confidence that at the conclusion of these Lectures sympathies newly awakened, and judgments more fully informed, may result in such an expression of opinion as shall convince unmistakably convince—all but the unduly prejudiced or the deeply interested that the confidence of a too generous public may neither be systematically abused, nor insulted with impunity. To that ultimate arbitrator, public opinion, I now therefore confidently and trustingly appeal. I have the most complete conviction that the voice of the people will be put forth in its might, and that erc long the complete abolition of a system that afflicts while it disgusts - that weighs down the energies of the strong, imperils the life of the weak, and lowers the standard of vitality in the aggregate population exposed to its influence—will be demanded of the Imperial Legislature.

After considerable reflection, I have thought that the observations contained in this Lecture would be more practical, and therefore more valuable, if they brought under your notice the actual condition of our grave-yards, rather than instituted a comparison between the ancient and modern The comparison would be more curious than useful, modes of burial. and I believe our time can be much better bestowed in dealing with things as they are in the nineteenth century, in the most magnificent city of the world, than in entering upon a disquisition which might lead us astray from our present purpose. It is quite certain that any attempt to draw a parallel between the ancient heathen and the modern Christian in this respect would be infinitely to the disgrace and dishonour of the latter. With your permission, therefore, I will at once proceed to bring before you a chain of irrefragable evidence which will, I believe, demonstrate the existence of a state of things in some instances so dreadful and so disgusting as to defy comparison with any other social evil at present afflicting the community. I shall endeavour to be as concise as possible; but, believing as I do that the extent of the moral and sanitary evils resulting from the practice of intra-mural burial is even yet little known, and therefore not sufficiently appreciated, I must request your patient attention to a somewhat detailed statement of facts, because I believe a simple recital will influence your judgment better than laboured comments.

I should fail in the execution of a duty owing to the public and myself if, from a sense of delicacy, I hesitated to connect my previous labours in this cause with the testimony of the great majority of the witnesses adduced by me before the Parliamentary Committee appointed to inquire into the Effect of Interment of Bodies in Towns. My writings, my evidence before the Select Committee on the Health of Towns in 1840, and the whole evidence tendered through me on this special inquiry in 1842, so mutually support and illustrate each other, that it would be impossible to do common justice to the subject were I to attempt to dissever them. I therefore shall have to refer, in the course of these remarks, to various allegations made from time to time in my works on this subject, and to the Reports of the Parliamentary Committees of 1840 and 1842, more especially to the latter.

You will, I trust, do me the justice to believe that profound conviction alone would have induced me to enter upon an inquiry at once repulsive and dangerous,—an inquiry involving some sacrifices of personal comfort, and a considerable expenditure of time and means. In justice to myself, I must also state, that I have not, nor ever had, the most remote interest in any place or places employed for the burial of the dead. I have no personal object in view-no private pique to gratify. My motives have however, been impugned, my veracity slandered. I have been accused, in terms as coarse as they were unmerited, of intentional exaggeration,—of being the chief City agitator of the cemeteries; of having culled witnesses, as far as possible, to serve a purpose; of having set aside the whole body of respectable furnishing undertakers; and it has been further alleged, that the studied exclusion of such witnesses was one of the most striking and ominous parts of Mr. Mackinnon's procedure, or rather of Mr. Walker's, for he ruled the Committee. They formed the following ciphers: He, the leading integer. He sat beside Mr. Mackinnon, and whispered, and prompted, and practised all the dexterous parts of an able and experienced attorney guiding his counsel.

I believe that I need plead no excuse for having done what I considered at the time a simple act of duty, and, indeed, of obligation. I had earned the possession of certain facts in relation to the management of London burial-places. In the year 1839, I brought those facts before my countrymen, and I thought them of sufficient importance to press upon the attention of Parliament in 1840, and in 1842.

Those who have experienced the difficulty of awakening the public attention even to the existence of a palpable wrong, or the constant pressure of the grossest injury, will easily comprehend that the task I had imposed upon myself was not easy of accomplishment, whilst its consummation was apparently so remote as to offer little prospect of its fulfilment; yet, cheered on by the kind, I might add, the too flattering, commendations of the press, a solemn belief of the vast, the incalculable interests interwoven with the subject, and a sincere conviction of my own rectitude of intention, I determined to wage war against one of the greatest abominations that can afflict a community,—the burial of the DEAD in the midst of the LIVING. When I entered upon this crusade, I was

prepared to expect opposition; I believed I might be the subject of insult. I have experienced both. Vested interests, however filthy their derivations, however abominable their sources, sometimes give evidence of uncommon vitality, even when they struggle for their very existence over the desecrated ashes of the dead.

I would willingly touch this portion of my subject with a light, nay, a charitable hand; but having been singled out for attack, having been accused of making a "VILE ATTEMPT TO IMPOSE UPON THE PUBLIC AND THE LEGISLATURE," having been assailed by the imputation that I was utterly unworthy of belief in the representations I had made upon the subject, I was compelled to act on the defensive. The grounds on which that defence was based you will become acquainted with as we proceed in our narrative.

For several years past, the conviction has been forcing itself on the public mind, that the practice of burying the dead in the midst of crowded cities and towns ought to be suppressed. It is, indeed, surprising that an evil of such magnitude should have been so long allowed to exist.

Among us, the ordinary dangers of interment are much increased by our manner of disposing of the dead. Grave after grave is dug in soil, frequently so overcharged with putrescent animal matter, that it is impossible to prevent the corruption of the atmosphere from the exhalations unavoidably arising from the frequent up-turning of the earth.

The condition of the majority of grave-yards and burying-places in London has been such for many years, that they have not been capable of receiving the number annually requiring graves.

There are men who have unblushingly made the disposal of the dead a source of income, to an extent that few would believe. Some private speculators have long known that a freehold grave-yard is infinitely preferable, as a source of profit, to any other property.

There is scarcely a single grave-yard, vault, or receptacle for the dead in London, that is not overcharged.

The burial-places of the metropolis and of the provinces have been under no superintendence! Public bodies or private individuals have been at liberty to allot grounds, or to choose depositories for the reception of the dead, without limitation as to number, without control as to locality, or the disposal of the charge with which they were intrusted; and it is proved that private individuals have availed themselves, to an alarming and most injurious extent, of the ignorance or poverty of survivors.

In some districts, during periods of increased heat, combined with moisture, the smell, exhaling from the surface of burial-grounds and from vaults under churches and chapels, has been so offensive, that property in the immediate neighbourhood has in consequence been materially depreciated.

In other localities, the most shameful practices are pursued by individuals who (in the absence of peremptory legal enactments to the contrary) mutilate

and destroy bodies in various stages of decomposition, to the certain deterioration and destruction of the health of the living.

I am prepared to prove that the most disgraceful acts are perpetrated in burying-places in densely populated districts,—neighbourhoods, indeed, in which the filthy, ill-ventilated condition of the streets and houses is such, that any additional causes of the corruption of the atmosphere should unquestionably not be permitted to exist.

Burial-places, long overcharged with dead, are yet in full operation. Individuals, totally disregarding the HEALTH of the PUBLIC, bury, or pretend to bury, the dead in places utterly incapable of containing the numbers entrusted to their charge, amounting, in some burying-grounds, to thirty on a Sunday alone.

The mortality of the Metropolis, at the present computation of 52,000 annually, will in five years be 260,000.

The lowest possible period that should be allowed for the destruction of the human body in graves, would be five years.

An acre of ground contains 43,560 square feet. If we divide this by 32, the number of square feet required for a single adult interment, we shall have 1,361 as the number of spaces left for graves in an acre of ground.

If the burying-grounds in London,* some of which have been in use for centuries, contain only 80 acres, portions of which have been pre-occupied by monuments, tombs, headstones, and otherwise, this space would receive and give burial to nearly 109,000 bodies,—a calculation which would leave, during any given five years, the mortality, as above stated, being 52,000 per annum, 151,000 bodies to be disposed of, or, in other words, uninterred!

It is thus demonstrated that bodies have been placed in spaces utterly inadequate to contain them: hence has resulted a shocking state of things—the mutilation of bodies, the destruction of their coffins, with a host of immoral consequences and injurious results.

It is clearly demonstrable that the entire system of intra-mural interment in this empire is not merely a disgrace to our civilization, false in principle, and immoral in its tendencies, but injurious and destructive to the health of the community.

From sources of information on which I have the fullest reliance, I am convinced that the state of things above described is not confined to the

^{*} I speak here only of London proper, and in offering this as a calculation, merely, I put, as I have a right to do, entirely out of the question many parochial and suburban (so-called) burial-grounds.

It would be an insult to the judgment of my readers to place in the category of superficial or cubical capacity such places as Spa-fields grave-yard, the Enon Chapel receptacle, or many other almost equally shameful places, with whose actual condition I am nearly as intimately acquainted as those who execute the so-called grave-digging therein; and I hesitate not to declare, that the practices necessarily pursued in many such receptacles are of so infamous and dangerous a character as to demand their instant closure, and to call for the criminal punishment of the proprietors and their shameless agents.

Metropolis, but exists in a proportionate degree in many other cities and towns of the empire; and that in Ireland, more especially, a large proportion of the burial-places are in a most shocking condition.

Although this subject involves many conflicting interests, and, perhaps, some prejudices, I believe it would not be found difficult to devise plans which, without for an instant losing sight of a most paramount necessity—the PUBLIC HEALTH—might be made available for the furtherance of objects which every reflecting person would rejoice to see accomplished.

If the burial of the dead were made a matter of State or police regulation—if a grand and comprehensive scheme were organised (and I humbly submit that such might be done), the Government and the Clergy would, by introducing judicious arrangements in respect of the reception of the bodies, the mode and expense of transit, and the localities for the interment of the dead, deserve and receive the thanks of the community.

I am perfectly convinced that the many injurious consequences, unavoidably resulting from the present system of interring the dead, can only be removed by a legislative enactment, originating with or supported by her Majesty's Government.

Such was the language I felt myself fully justified in employing in the month of January, 1842, when I addressed Sir James Graham, her Majesty's then Secretary of State for the Home Department. Whether the Right Honourable Baronet's determination to grant a Committee of Inquiry was influenced by my communication, I know not.

In the succeeding February, the following petition was presented to the House of Commons by W. A. Mackinnon, Esq.:—

"THE HUMBLE PETITION OF GEORGE ALFRED WALKER, SURGEON,

"Showeth—That your Petitioner has carefully inspected the majority of the places at present used for interment in the Metropolis, and is prepared to prove that for some years past they have been very inadequate for the reception of the dead.

"That your Petitioner would humbly invite the serious attention of your honourable House to the fact, that where the utmost vigilance should be exercised, and the greatest care employed, there is, under the present system of inhumation, an entire absence of every precaution; for, in the most densely populated districts, burial-places exist which are dangerously overcharged, and in many such localities bodies are placed one above another, and side by side; to the depth of 25 or 30 feet, the topmost coffins being but a few inches from the surface.

"That receptacles for the dead, underneath or near churches or chapels, have been and continue to be crowded to an incredible extent; thus elaboratories of malaria are night and day in operation, and constantly diffusing their injurious products.

"That the placing of bodies in lead affords comparatively no protection to the health of the public; for, although the process of decomposition is less rapid under a medium temperature, as in vaults, the expansive force of the gas is such, that the lids of coffins frequently become convex, and sometimes are rent asunder, and the gases thus and otherwise disengaged become diffused and mixed with the atmosphere, and enter the lungs in every inspiration.

"That in warmer climates, and in our own, exhalations from dead bodies have in many instances seriously injured health, and in some have immediately destroyed life. In confirmation of the latter assertion, your Petitioner would humbly direct the attention of your honourable House to the death of two men upon the opening of a grave in Aldgate church-yard, in the month of September, 1838, and to a yet more recent instance, in the death of William Green, a grave-digger of St. Margaret, Westminster, and the subsequent illness and death of the surgeon in attendance, and his female domestic, who both sank within a few days of the gravedigger.

"That your Petitioner is convinced, from long observation, that the keeping of dead bodies for a period of many days, and during warm weather, more particularly in densely populated and ill-ventilated neighbourhoods, is a practice highly injurious to the health of the living, and requires the interference of your honourable House.

"That, from sources of information on which your Petitioner has the fullest reliance, he is convinced that the evils arising from the present system of interment are not confined to the Metropolis, but exist in a proportionate degree in the cities and populous towns throughout the kingdom, and in some of the dependencies of the British empire.

"That your Petitioner believes he is performing a public duty in thus expressing his conviction, that the majority of the places for the interment of the dead are so many centres of infection, constantly giving off noxious effluvia, which, according to the circumstances of locality, atmosphere, and the power of resistance in those subjected to its influence, operate as a slow or energetic poison.

"Your Petitioner therefore humbly and earnestly prays, That a Committee of your honourable House may be appointed, or such other means employed as your honourable House in its wisdom may deem necessary, for the purpose of instituting a full and searching inquiry into the condition of the burial-places of the United Kingdom, your Petitioner believing that such evidence will be elicited as will convince your honourable House of the necessity of a revision or abrogation of the existing laws relative to burial, or of the total and absolute prohibition of the interment of the dead in the midst of the living."

The result of this Petition was the appointment of a Select Committee, of which W. A. Mackinnon, Esq., was named Chairman. The Committee commenced the examination of witnesses on the 17th of March, and concluded their labours on the 6th of May.

The Report of that Committee stated, that "after a long and patient investigation, your Committee cannot arrive at any other conclusion than that the nuisance of interments in large towns, and the injury arising to the health of the community from the practice, are fully proved."

The resolution of the Committee shows that all the allegations contained in my Petition were substantiated, whilst the testimony accorded in the Report was to myself an acknowledgment of the services I had rendered.

Before endeavouring to bring more immediately under your notice some of the facts on which the above conclusion of the Committee was based, we may pass rapidly in review a few circumstances connected therewith.

Although I may fairly take occasion to express my regret that a question of such incalculable importance as that of the condition of the resting-places of the dead in the Metropolis should, up to the present period, have excited so little apparent attention, I am pleased to observe that recent events have again directed the public mind to a subject which, if I mistake not, will yet exact from the living the admission, that it is not only irreligious and impolitic, but highly dangerous, to sanction or permit the execution of such sacrilegious and abominable acts as have very recently been exposed in the columns of the daily press. The parishioners of St. Ann's, Soho, and St. George's, Bloomsbury, are bestirring themselves, whilst "the vestry meeting of St. Botolph, Aldgate, summoned on the 24th of September last, amongst other things, to elect a sexton, was obliged to separate without completing its purpose, there being no candidate for the office of sexton resident in the parish." It looks well for a parish containing a population of 9,525 souls, that there was no resident candidate for the office; for as it is a compound one, and should include the duties of grave-digging, such as they are in the shamefully overcharged grave-yards of London, it argues a much improved condition of feeling, or appreciation rather, in the community of sextons. It looks well, therefore, I repeat, and is an earnest of better things; for when matters are at their worst, they sometimes mend.

If the Committee of rate-payers appointed to inquire into the condition of St. Ann's burying ground and vaults would turn to pages 53 and 71 of the Parliamentary Report, "Effect of Interment of Bodies," they would find some evidence that might assist them in their deliberations, and possibly go some way in forming their conclusions. It is the more necessary that this evidence should be had in remembrance, because it appears, by the preliminary meeting, that the "Churchwardens had examined the church-yard, and did not find it worse than it had been for the last four or five years; and they did not see the necessity of a new church-yard, which would necessarily entail on the parish a very considerable expense."*

We obtain some valuable information from the statements made before the Committee by Bartholomew Lyons, an ex-gravedigger of St. Ann's, Soho. This man proved that graves 20 feet in depth are dug by order of the Board of Vestry on purpose to make the ground last longer; that they sometimes break up the old coffins. He further states, that from every deep grave dug, coffin-wood sufficient to fill a dozen wheelbarrows was broken up. That a wretch named Fox had "done most wonderful things in the vaults. He has been (he says) the biggest brute of any gravedigger in this earth, and he suffered for it at last; he died in the Strand union workhouse, actually rotten."

^{*} Vide the Morning Journals.

Lyons, who gave his, I believe, honest testimony against practices that would disgrace, if not disgust, a cannibal, died about two years since, a miserable, half-putrid, walking nuisance during his life-time, his passage to the grave made more sorrowful, and his end hastened, by the brutal conduct of certain parties, who had benefited by his depraved agency. After the man had given his evidence before the Parliamentary Committee, he was hunted like a wild beast from grave-yard to grave-yard, where he sought to obtain employment in his filthy avocation. Creatures who subsisted by the daily practice of the most disgusting and unjustifiable mutilations of the dead were set upon him: he was made to feel the force of their vengeance; and, but for pecuniary assistance rendered from time to time, he would, I believe, have perished from starvation.

Let us now turn to the testimony of J. C. Copeland, also an ex-gravedigger of St. Ann's, Soho, who informed the Committee that he had seen Fox, and a party who used to assist him in gravedigging in that ground, "play at what is called skittles; put up bones, and take skulls and knock them down; stick up bones in the ground, and throw a skull at them as you would a skittle-ball." Well might our immortal bard exclaim—

"Here's fine revolution, an' we had the trick to see't. Did these bones cost no more the breeding but to play at loggats with them? Mine ache to think on't."

Copeland has seen bodies "chopped up before they were a quarter decayed." So much for the condition of St. Ann's grave-yard on the surface and the vaults underneath the church. About three years since I made an inspection of the grave-yard. I found an enormous quantity of human bones, some mixed with, and others lying upon, the surface of the earth,—a most offensive and scandalous superficial proof of the method of "management" then adopted. I could add much more perchance to the purpose would time permit, but it would be only a recapitulation of the "thrice told tale." The facts, however, above given will afford you some idea of the condition of the sub-surface.

I have so often insisted in my writings that bulk must occupy space, that it seems unnecessary to repeat it. A grave-yard or a vault will contain so many bodies and no more. Time should be allowed for the gradual dissipation of the invariable gaseous products of human decomposition; but gross cupidity, the desire to make money, has penetrated even into the so-called resting-places of our deceased friends. The enormous fees paid in some places cannot secure for our dead undisturbed repose. The pride, pomp, and circumstance of a funeral is a bitter jest, a biting sarcasm; the bodies of our wives, our daughters, our relatives, are to be exposed to the vulgar gaze, the coarse jests, and brutal treatment of men, who, being men, would not, dare not, execute the tasks imposed upon them.*

The means employed in the economy of the London grave-yards consist in

^{*} Vide "Gatherings from Graveyards," p. 213.

having recourse to practices which I some years since ventured to designate by the term "management."*

In this "management" of the ground, former occupancy is disregarded; coffins are remorselessly broken through, and their contents heaped together in wild confusion, or scattered carelessly over the surface, "exposed to insult, lewd, and wantonness." Great expense is frequently incurred in funerals; the encasement is often strongly made and highly ornamented. It is not difficult, therefore, to account for the fact that second-hand "coffin furniture," nails more especially, may be found by the hundred weight at many of the "dealers in marine-stores," nor can we wonder that coffin-wood has been extensively used as ordinary fuel in low neighbourhoods.

I now proceed to confirm the above statements by other testimony.

On the 11th October, 1839, great excitement prevailed in the neighbourhood of Globe-lane, Mile-end, in consequence of the interference of the police to prevent the indecent disinterment of bodies in the burial-ground behind Globe-Fields chapel. It appeared that Mr. Poole, a clerk in the service of the Eastern Counties Railway Company, being stationed on that part of the railroad which runs close to the burial-ground in question, had observed two men and a boy exhuming the bodies buried in one part of the ground, and hurling them, in the most indecent manner, and indiscriminately, into a deep hole, which they had previously made at another part; and considering such a proceeding as somewhat extraordinary, as well as exceedingly indecent, he felt it his duty to call at the police-station-house, in the Mile-end-road, and give information of what he had witnessed. Inspector M'Craw, accompanied by Serjeants Parker and Shaw, K 10 and 3, in consequence proceeded to the burial-ground in question, and as they were about to enter, they met a lad with a bag of bones and a quantity of nails, which he said he was going to sell. On examining them, the nails were evidently those which had been taken out of coffins, and the bones seemed to be those of human beings, but the lad denied that they were so, though he acknowledged the nails to have been taken from the coffins. The inspector and serjeants then proceeded to an obscure corner of the ground, and found there a great number of bodies, packed one upon another, in a very deep grave which had been dug to receive them, and the uppermost coffin was not more than seven or eight inches, at the utmost, from the surface. The breast-plate and nails were removed from the lid, so that they could at once remove the latter, and from the appearance of the body, as well as of the coffin, it appeared to be the remains of a person above the middle rank of life, and to have been interred about a month or six weeks. On making inquiries, it appeared that the ground was the property of an undertaker, residing in the neighbourhood of Bishopsgate-street; that owing to the low rate of fees, and affording a protection against resurrectionmen, by being surrounded by high-walls, a great number of burials took place; but as few would select the remote corner as a place of rest for their friends or

relations, it was used for the purpose of removing the bodies of those buried in the better and more crowded part of the ground to make room for others. The officers said, that the dreadful steneh emitted from the half-decomposed bodies, placed in the hole before-mentioned, was sufficient to engender disease in the neighbourhood, upon which the men immediately set about eovering them.

Now, these facts were brought before the public in October, 1839,* and I will show you that they were fully substantiated in 1842 before the Parliamentary Committee, of which I have before spoken; that subsequent events have confirmed, in every particular, statements published by me seven years ago, and that more recent circumstances have more especially demonstrated the truth of these published works, and the evidence adduced by me before the Parliamentary Committee.

W. Miller, an ex-gravedigger in Globe Fields Cemetery, Mile-End Road, in his examination before the Parliamentary Committee, states, that it is a private ground, and belongs to Mr. T. Tagg, an undertaker. That many pits have been dug in it for depositing bodies previously interred there. That these bodies came out of eoffins which were emptied for others to go into the graves. That the eoffins were broken up and burnt. That about twenty deep square pits were dug, about 4 feet wide, and 7 or 8 feet deep. That these pits, capable of containing about a dozen bodies, were filled with them up to the surface within about 2 feet. they were thus disposed of to make room for other corpses. That he had "dug a matter of 20 such pits" himself. Miller then confirms in every particular the aecount of the seandalous seene which I have just read to you. He states that the wood of the coffins was burnt in the house of the sexton, that he has seen the smoke coming out of the chimney of the man's house, and that it has smelt like a piece of meat roasting. That this picker up of unconsidered trifles, the sexton, a "gentleman" of the name of Cauch, who resides opposite, puts on a surplice and reads the "regular church service" over the dead. † Can impiety be more horrible?-will our language afford words sufficiently strong to characterise such conduct? But let us pass on.

In reply to the question, were you in the habit of performing this gravedigging without the use of spirits? Miller says,-no; we are obliged to be half groggy to do it, and we cheered one another and sang to one another. He affirmed that the work was so disgusting, that he was obliged to be half drunk in order to be able to execute it; that he took a quartern of gin, a pot of beer, and a pipe of tobacco, and then his blood began to flow. We will take one further proof from this man's evidence in confirmation. He says (and you will pereeive that he speaks in the plural), we used to get a rope, and put it round the bodies' necks, having first taken off the lid of the coffin, and then we dragged them by the rope; and sometimes the head would come off, and the trunk would fall

^{*} Vide "Gatherings from Grave-yards," p. 199. + Vide "Report on the Effect of Interment of Bodies," p. 84, et seq.

down again; then we used to go down and fix it round the body, and haul it up that way; and sometimes it was so tight, we could not get it off again; and, farther, that it has been a regular practice to chop up dead bodies, that they cut through what came before them, and turned it all out. He has known them cut a body through, leave half in the coffin, and chuck the other half out. Miller says, he felt rather awkward at this kind of work at the beginning, he used to stand and tremble; he could not stomach it at all. Alas, poor degraded, fallen humanity, there is something even in its worst aspect that reminds us of its origin. This poor wretch, compelled by his necessities, became the degraded instrument of unchecked, reckless, determined avarice, a vice disgusting under all circumstances, but infinitely beyond comparison more disgusting and injurious in its consequences when it fastens upon dead victims, and erects its altar in a ranked overgorged grave-yard.

Soon after the above evidence was given, the proprietor of the ground, Mr. Thomas Tagg, presented himself before the Committee, and requested to be allowed an opportunity of rebutting Wm. Miller's testimony. This was granted. The following is an epitome of his evidence, which I think you will agree with me, instead of rebutting, proves all I have advanced, although Mr. Tagg considers Wm. Miller's evidence altogether false as to the digging about twenty pits, and their being filled with human bodies. He believes that no such circumstance could have occurred without his observing it, as he was in the habit of going to the ground sometimes once a week, and sometimes twice a week.

Tagg seems anxious to repudiate any connection between Miller and himself, although he very kindly transfers him to the tender care of his sexton. William Miller was never in his employment, he was employed by the sexton; I never employ the gravediggers, says Mr. Tagg. Mr. Tagg does not believe that any such circumstances deposed to by Miller, the police, and the public press could have taken place without his knowledge, and he never saw any pit or pits dug. There are some persons who see, but who will not perceive. Mr. Tagg says that his freehold ground was opened in the year 1820; that it was religiously and solemnly set apart for the purpose of burials by one of the Weslevan ministers. He never had the ground properly measured, and most probably never will. Mr. Tagg, however, deals in numbers, although he does not know the extent of surface. He tells the Committee that the aggregate number of 9,500 bodies has been buried in his ground, and he considers that not one half of the ground is occupied. Mr. Tagg's ground contains about 28,756 superficial feet, and would receive about 900, not 9,000 bodies. There is also a dead man's receptacle underneath the chapel, and a Sunday school, which stands in the grave-yard. You will perceive that these grave-yards are as vast in their capabilities as the appetites of their proprietors are expansive,—the one will never be full, the other never satisfied.

1 shall not devote further time to the remaining evidence of this person,

although nothing would be more easy than to demolish it. He understands, and believes, and thinks, when he should know and express his sorrowful conviction and regret, that he has committed by his agents the most offensive, the most immoral, the most dangerous of desecrations. Henry John Parker, No. 10, K division, and William Shaw, a sergeant of the police force, confirmed before the Parliamentary Committee the truth of the statements I have made to you as to the abominable practices in operation in this ground on the 11th of October, 1839.

Although these evidences of management were discovered by the merest accident, they are not the less valuable; they afford irrefragable proof, in conjunction with other evidence of a similar nature, of the necessity that exists for the close and minute supervision of the receptacles of the dead, and that the longer that supervision is deferred, the greater will be the amount of moral and physical injury inflicted upon the living,—the greater the insults offered to the dead.

We have seen how matters are conducted in one of the so-called resting-places for the dead in the eastern part of the Metropolis. Let us now recur to a recent proof of "management" in the City of London. I condense the facts from the newspaper reports of the evidence taken before Mr. Broughton, the magistrate at Worship-street, in the early part of September last.

Several loads of bones and human remains, intermixed with pieces of coffin-wood and coffin furniture, which it was alleged had been brought from St. Matthew's, Friday-street, had been shot in a field belonging to a Mr. King, at Haggerstone, by a dust contractor, named Gould. John Roe deposed before the magistrate that he worked for Mr. King, in whose field the rubbish, as it was called, was shot. That the field is an open one, and the public have permission to shoot rubbish there. White, the driver of the cart, after he had pitched on the ground the human material and its adjuncts, asked Roe how much he was to receive for his cart-load of rubbish. He was told he was not to get anything, when he replied that if he had known he was not to have four pence a load, he should not have shot it there.

Holland, a constable of the N division, deposed to finding the wood of coffins stored away in the back yards of five houses at Haggerstone, and also to finding 43 lb. of metal, consisting of plates, handles, &c., of coffins, at a marine-store in the neighbourhood.

John Gardiner, of 6, Southwark-street, Haggerstone, who first drew attention to this terrible affair, deposed that he saw a number of men, women, and children (there might be 20 or 30 of them) crowding round something in the field. He saw pieces of coffins and lids of coffins, which were very nearly whole, and as sound as if they had not been in the ground for more than two years. He saw human bones in the field with flesh on two of them two inches thick. He saw also a human skull with carroty hair on it. He was no scholar and could not read, but he saw a young man loading a spring-barrow with coffin plates and

handles, which he was taking away to sell. His own boy, he understood, pieked up some plates, and sold them to the marine-store keeper; he saw many of his neighbours, and an undertaker living close by, take away the wood of the coffins to use as firewood. One woman who took the wood, and boiled her kettle with it, afterwards threw the kettle of water away, as she could not fancy the water in consequence of its having been boiled with the wood from a coffin. Henry Longman, and another boy, chopped part of a coffin in two. Longman sold one lot of coffin plates and handles of coffins for $11\frac{1}{4}$ d., and another for 5 farthings. White, with his mate Roffey, two of the carters employed by the dust contractor, went to St. Matthew's Church, Friday-street, Cheapside, at 3 o'clock in the morning, to take away rubbish; there were present the street-keeper, the beadle, the grave-digger, and another person. The rubbish was just inside the church door. He had no extra pay for the job. Had some drink; it was gin. In reply to the magistrate, the defendant said he drank the gin in the church.

A married woman, named Elizabeth Norris, also deposed to the loathsome character of the deposits, the effluvium arising from which was so overpowering that she with difficulty escaped fainting, and said, that among the refuse that was kicked about, she observed a thigh bone with flesh upon it, as broad as her hand, and a foot in length; a spinal bone also with flesh attached to it; a silk handkerchief stained with blood, evidently used to tie up a person's jaw; and a woollen mattrass, still bearing the impression of a human figure.

Holland, the warrant officer, produced several pieces of eoffins, and stated that such fragments had been extensively dispersed about the neighbourhood, and that in five houses alone he found at least a eart-load. On being called upon to answer the charge, the defendants severally said that they had been directed by the nieee and sister of their master to proceed at 3 o'clock on Saturday morning to eart away some rubbish from the vaults of the church in Friday-street, in which they were assisted by the street-keeper, the gravedigger, and other persons.

The report in the newspapers concludes with the statement that the proceedings attracted the greatest interest, and the court was densely crowded during the investigation, which lasted several hours. Now, monstrous and incredible as these statements may appear, they unmask no new practices, they unveil no special deformity as connected with the so-called burial of the dead in London. Official superintendence, assisted by the shovel, the pickaxe, the sledge-hammer, and the crow-bar, divide those who hoped to repose together quietly in death. Men, women, and children, the living and the dead, are involved in this horrible, this disgusting, this most unchristian desceration. The dust contractor, his nicce and sister, in a word, all who permitted, or aided, or assisted, directly or indirectly, are chargeable with its consequences. And who shall chronicle them? Who shall tell us whether these official mutilations, these terrible, these revolting descerations of the image of the Almighty, will not surely bring down upon

us His severe displeasure? Who shall trace the physical effects of the yet unknown but deadly poisons, thus let loose at the will of this or that official?

Let us now inquire a little further into the condition of another burial-place in the City.

Mr. James Anderton, a member of the Common Council of the city of London, has, as you are probably aware, brought the question of interments twice before the members of that court, and has twice carried by acclamation petitions to the House of Commons for the absolute prohibition of burials within the Metropolis. Mr. Anderton eonsiders our present practice little, if at all, better than burying in our town streets. He applies this objection to all the church-yards within the city of London; says, truly, that they are most of them very small; that they are all of them in very crowded neighbourhoods, in the very heart of the City of London, in fact, in the streets. Mr. Anderton informs the Parliamentary Committee that he has heard innumerable complaints of the state of the church-yards, the effluvium arising therefrom, and the bad effects resulting to persons residing near them. Mr. Anderton considers that burials in vaults under churches is highly objectionable. He has always considered that churches were made for the living, and not for the dead; and illustrates this position by the state of the vaults of St. Martin's, on Ludgate-hill, in the very heart of the City. The ehurch being under repair, and the vaults requiring "a clearance," no doubt, Mr. Anderton witnessed the process, which consisted in mixing up the bones and decayed coffins with rubbish, in order that the passers by might not see what was going on. He made an attempt to go down into the vaults, but was so disgusted that he returned. In answer to the question, you think all the parish burial-grounds within the bills of mortality are in a bad state? Mr. Anderton replies, I think them a disgrace to the country, I think nothing ean be worse; and if gentlemen would go round the City and look at the state of the church yards, the places in which they are situated, and the size of them, I do not think they would want any other opinions than their own. He concludes by stating that he would decidedly prohibit the burials of all elasses, either rich or poor, in the present church-yards, and in churches, too, if in his power to do so.

Dr. J. R. Lynch, who has honourably distinguished himself by his endeavours to benefit the sanitary condition of his fellow-citizens, informs the Committee that the smell from the vaults of St. Martin's, Ludgate-hill, is on the Sabbath day at times awful; it is quite perceptible to any one who enters the church. The consequence is, that the church is very little attended.

The beadle of the parish of St. Martin's, Ludgate, gave important testimony before the Committee of 1842. The following is an epitome of his evidence, so far as it concerns our present object:—He thinks that between 400 and 500 bodies are contained in the vaults of the church. There is no grave-yard. He has on two occasions "cleared out" the vaults. Has frequently perceived smells

arising therefrom, more especially in damp or warm weather. It became necessary to remove the corrupt matter that had accumulated in consequence of want of room, and the coffins tumbling one on another. About ten cart-loads were taken away by the contractor who repaired the church. The bodies of parishioners are permitted to be buried in wooden coffins; but if a non-parishioner requires what is called Christian burial in the vault of St. Martin's, Ludgate, his or her body must be inclosed in lead. The church was some years since warmed by stoves, which were so fixed that the air which supplied them was drawn from the vault, so that a smell could be perceived by a person standing close to the stove.

Mr. J. Harvey, a general builder, and who has been 18 or 19 years parishclerk of St. Andrew Andershaft, gives valuable testimony. He says, that churchyard, whose greatest distance from the adjoining houses is about 23 feet, contains a little above 2,000 superficial feet, and is therefore capable of containing, according to calculation, 62 adult bodies. That a great number were buried there during the visitation of the cholera. That the highest coffin is a little above 4 feet from the surface. That from bodies having been buried so thickly, there has been a great deal of obstruction found. That he has seen bodies cut through. That a great deal of coffin wood has been consumed in the fire-places of the church. That the leaden coffins have been appropriated to the profit of the parish; that the money has been paid over to the church-wardens; that in one instance they sold three tons of lead, which went to defray the expenses of "clearing out." The witness further states, that they bury as close to the foundations of the church as possible.* That frequently a bad smell is perceptible when graves are opened. That bones have been found in the cellars of houses in Leadenhall-street. When asked to account for the circumstance, Mr. Harvey replies, that it all formed a part of the church-yard formerly, and that if they have anything like an excavation to make, they find many bodies.

Let us now select a fact for which we are indebted to the public press:-

A correspondent in the *Times* of September 10, 1846, who signs himself "A Parishioner," says, the removal of human remains from the vault of St. Matthew's church, Friday-street, is only one more of those numerous instances that take place in many of the City churches every ten or twelve years, where no burial-ground is attached to the church. [We shall see presently that these "clearings out" take place where burial-grounds are attached.] The writer continues,—"in my owh parish (St. Martin Ludgate) this disgusting exhibition took place in the year 1840. This church at that period was undergoing repair, when it was found necessary to, what is termed in vestry, clear out the vault; that is, the vault where the poor are buried in simple wooden coffins. As these piles of human remains fall, it becomes necessary to remove them, and this removal took place opposite my own door, between six and ten o'clock in the

^{*} Vide "Gatherings from Grave-yards," p. 219.

morning, was witnessed by many parishioners as well as passers by, and known to all who attended the vestry."

On this communication I beg to remark, that the well-intentioned correspondent of the *Times* has fallen into a very common, but a very dangerous, error. Leaden coffins are, as I have repeatedly proved, perfectly useless as a means of retaining the gas produced during the decomposition of the dead body. Even the old and much heavier leaden coffin (for in this respect men's coffins, like men's principles, are grown much thinner than they used to be) cannot retain the gas. The leaden coffins offer, however, an inducement to a certain class of robbers who prowl about church-vaults. In confirmation of these observations, I beg to direct your attention to the following remarks and statement of facts published by me some years since:—

"A man was charged before Sir Claudius Hunter (20th March, 1839), at Guildhall, with having in his possession some portions of leaden coffins, which had been stolen from the public vaults of Shoreditch Church.

Sir C. Hunter asked if there was any additional evidence as to the coffin lead? "The vestry-clerk said there was only one fact, that on one of the cases from which the lead coffin had been stolen, and which now contained the corpse, there was the name of the deceased corresponding with one of the plates produced, as having been traced to Joseph's.

"Sir C. Hunter observed, that the sanctuary of the dead ought not to be invaded with impunity. The temptation to steal our bodies had been removed by the Legislature; but now the love of gain tempted persons to steal our coffins.

"In the vaults of a church centrally situate, the burying-ground of which is on the surface, in a most disgusting condition, a nobleman, and several other persons of distinction, had found their last resting-place.

"In the year——, a rumour arose in the parish, that the rights of sepulture had been grossly violated; inquiries were instituted, men were employed to replace the bodies in the shells that were left, and from which the lead had been stolen; a hole was dug, into which the remainder of the bodies were thrown. The grave-digger was privately examined before a magistrate; it was found that any proceedings against him would implicate others. The affair was hushed up, and the vault, which had undergone a thorough clearance, was again made available for the purposes of interment,—again, perhaps, to be subjected to a similar purgation, when the cupidity of the gravedigger may be in the ascendant, or the want of room shall require it.

"One of these men told me, that some of the bodies were comparatively fresh, and the flesh of others was reduced to a brown and horribly fetid pulp, which left the bones on the slightest touch; but that no serious accident occurred, which can be accounted for by the fact, that the putrefactive process, attended by the evolution of gas, had gone by.

"Four coffins, out of upwards of fifty, alone escaped these brutal depredators of the dead,—that which contained the remains of the nobleman, which it was expected would rest ultimately in ——, according to his last wish, and three others, secured by strong chains, passing through their handles at each end; these were padlocked, and the keys were kept by the survivors."*

"I may here take oceasion to inform you, that many thousands of bodies have been deposited in places on the surface (in vaults, and, indeed, in cellars) without being placed in lead. This is a monstrous abuse, and one that ought to have been annihilated in its very origin. I have repeatedly entered places in which vast piles of coffins are deposited; the general smell of the atmosphere is extremely offensive. Here have I seen women of delicate organisation, oppressed with gricf for the loss of a beloved object, subject themselves to the action of a "miasma," given off in enormous quantities,—possibly themselves specimens of walking sickness, led thither to contemplate the sad remains of what was an affectionate husband, a beloved child, or relative. This should not be permitted,—the power of resistance ought not thus to be experimented with.

"In ojecting to the keeping of dead bodies when in lead, unless placed in the earth, and at a proper depth, I am aware that I differ with others upon this subject. Dr. Pascalis, an American physician, says, 'the structure of their coffins, in England, where, among the wealthy ranks, they generally use the ehurches for burial, seems well adapted to prevent the evils otherwise arising from their imprudent fashion of entombing eorpses in the interior of churches; coffins of lead, soldered, lined, and cased in mahogany or walnut, again in oak, and over all, covered with cloth or velvet, may be more seeure against pestiferous vapours.' Dr. Pascalis is here in error; the coffin may be of lead, soldered, lined, and cased, yet the pestiferous vapours will frequently escape; this security, therefore, is merely imaginary. Every person who has been accustomed to enter these places can vouch for the truth of this assertion; the disgusting stench in vaults largely ventilated, proves this. Very poisonous gases are the products of the decomposition of the dead; they are generated under all circumstances, whether in the strong and expensive coffins of the rich, or in the frail and imperfectly made shells of the poor. These gaseous products of decomposition, condensed and compressed as they are to considerably less than half their volume, by continual increments from the decomposition of the general tissues, in some instances may be retained by the mere strength of their eases; these, necessarily, must ultimately decay and burst, when the gases generated will be diffused throughout the vault in which they are deposited; whilst, in the graveyard, the borer of the gravedigger, often employed in searching, is driven through the lid of the eoffin, from which volumes of pernieious gases are continually emitted."*

I fear that I am troubling you with a detail too monotonously disgusting; but, reasonings, to be worth anything, must be based upon facts. Bear with me therefore, whilst I bring under your notice some further proofs of the actual condition of the receptacles for the dead in London.

I have alluded previously to the practice of digging deep graves in the midst of a mass of human remains, a system which eannot be too much reprobated. It is, however, I assure you, far too general. I insisted particularly on the results of this deadly and immoral practice some years since before the Health of Towns Committee, when I brought, amongst others, the condition of the Grave-yard in Drury-lane, belonging to St. Martin's-in-the-Fields, under the notice of Parliament. In the year 1840 it was the practice to dig deep pits in this ground.

^{*} Vide "Gatherings from Grave-yards," p. 205.

A receptacle of this kind, 22 feet deep, was made within a few feet of the windows of a dwelling-house. Into this grave projected ten or twelve coffins, some of which had been mutilated, and doubtless many bodies and coffins had been entirely removed in the digging this pit.

In the year 1525, the parish of "St. Martin" was, as it name implies, "in the Fields." In the above year, THIRTEEN bodies were buried in the parish. In 1526, FOURTEEN were buried. In 1527, TWENTY-TWO were buried. In 1528, THIRTEEN were buried. The examination of the sextons' books, commenced in the year 1691, would, as tending to elucidate my subject, be both interesting and important. The burial-ground of this parish, situate on the western side of Drury-lane, contains 10,080 superficial feet. Within a period of ten years, 315 adult bodies, and no more, might have been buried there, or at the rate of 32 per annum! By an official return, it appears that in one year, 565 bodies were disposed of between the above-named burial ground (?) the one at Camden Town, and the vaults under St. Martin's church. There is little room for doubt, that on an average three hundred and fifteen bodies, instead of thirty-two, have been interred yearly in the burial-ground in Drury-lane.

There are many here present who will remember the filthy condition of this place some years since, when it was covered with artichokes. It was, as I described it in 1839, luxuriant in rank vegetation, high as men's shoulders,—its surface broken, uneven, and its general aspect repulsive; it was then, and now is, a shabby, unchristian depository for the dead,—an abomination to the living.*

Formerly, on the north side of this grave-yard, were boarded sunk areas, giving a borrowed light and air to five houses, the property of his Grace the late Duke of Bedford. This burying-ground was originally below the surrounding level; now it is at least five feet above the street. The elevation has been gained by packing bodies stratum super stratum, until long since it has been impossible to obtain a grave without previous disturbance and mutilation. In a very recent instance, the searcher was repeatedly employed. An old inhabitant well remembers that the areas of which I have spoken were made in self-defence, to prevent the obstruction of light, which was gradually encroached upon, and also to hinder the coffins falling through the ground-floor windows. areas projected on an average 3 feet 6 inches into the "grave-yard," and were about 4 feet in depth. Since the removal of the boards, and the substitution of a brick wall, 2 feet have been gained in the entire length and height of the ground; and the areas have been sunk to a depth varying from 8 to 16 feet. Thus has a little more space been gained to deposit fresh centres of infection for the living, by the most unjustifiable disturbance and mutilation of the dead!

The compound of human flesh, bones, tissues, and earth, removed in sinking these areas, and digging a foundation for the wall, it was intended to cart away.

^{*} Vide "Gatherings from Graveyards," p. 235.

Some loads were removed, and others already deposited in the street would have followed, but they were noticed by the passers-by. An outcry was raised; one person, more determined than the rest, sought out the authorities of the parish, and insisted that a stop should be put to such practices. The material deposited in the street was again "wheeled back in barrows," and, with the succeeding masses of earth excavated, spread over the surface of this grave-yard, which was raised considerably in its entire surface by this means. The stench arising from the disturbance of the great number of bodies, and the throwing up of the successive portions of soil, was so abominable, that the men employed refused to continue the work; they were allowed, however, a large quantity of gin and porter, as an encouragement to proceed; £1 9s. was paid for drink during one week by the employer of the men who executed this work; they were on several occasions seen intoxicated.

A new "bone hole" was made about the same period. Four men were employed during eight or ten days in removing the bones from the old receptacle into the new. One of the gravediggers amused himself by noting with chalk the number of skulls which were displaced (upwards of 500) in one day. I find in the churchwardens' account with the parishioners of St. Martin-in-the-Fields, in the year 1840-41, the following items, under the head of "Repairs to Drurylane Burial-ground:"—

Thus, an expense was incurred which would have *purchased* elsewhere a piece of ground much better adapted for the purposes of burial, of nearly four times the extent of the above grave-yard. So much for the *pecuniary policy* of parish management!

Now, this grave-yard* contains about 11,000 superficial feet, and would give decent burial to 560 adults, and no more. Hence the following detail of a most disgraceful outrage which was perpetrated on the bodies of the dead in St. Martin's Green-ground in Drury-lane, although it will certainly disgust, will scarcely astonish you:—

The surviving relatives and friends of Mr. Foster, of No. 1, Chapel-court, Long-acre, proposed to bury him in this receptacle. In consequence of the disgusting proceedings which took place a few days previously in the Greenground in Portugal-street, Lincoln's-inn-fields, when the body of Mr. Jacob Burns was forced into a hole better fitted for the reception of the carcase of a dog than for the last resting-place of a human being, Mr. Francis Sloman and Mr. John Curtis, at the desire of the family of the deceased, undertook to superintend the arrangements for making the grave. Finding that the gravediggers had made the grave only $2\frac{1}{2}$ feet deep, they at once told them that the friends of

the deceased would not allow him to be buried at so shallow a depth. "Wont they," observed the men; "then if they do not, here is a coffin," pointing to one under their feet, "which we must remove;" and, suiting the action to the word, they sent the pickaxe into the coffin, taking off the lid, and exposing the mortal remains of its pale tenant. They then put the axe under the coffin, which they thus overturned, throwing out the corpse, and smashing it and mixing it up with the clay. They threw up the coffin, and wheeled it away, for the purpose, as alleged by parties on the ground, of burning it; after which they returned to their work and shovelled up the flesh and bones which they had mixed with the clay. After they had cleared that away, the friends of the deceased observed that even then the grave was not sufficiently deep. "Oh," rejoined the gravediggers, "if that is the case there are two other coffins underneath which we will also remove, and as we have made a beginning we will go on." Satisfied that they would thus deepen the grave, the friends of the deceased returned to the house for the purpose of accompanying the funeral proccssion to the church-yard. Upon reaching the latter place, they were convinced, from the depth of the grave, that the two other coffins and their contents were treated like the first. The widow and children of the deceased, hearing how the three other bodies had been outraged, expressed their fears that deceased's coffin and body would be also broken up when want of room required it. Their fears had such an effect upon them that they could be scarcely induced to leave the burial-ground, which they, however, at last did, crying and screaming most distressingly. The scene was so heartrending that even Mr. Whitaker, who superintended the funeral, accustomed as he is to such melancholy spectacles, could not refrain from tears. In fact, the whole assembly sympathised and wept with the widow and orphans. The plate of one of the coffins broken up bore the date of 1837.*

Under a building in which the clergyman robes himself previous to reading the burial-service in this ground, there is a large depôt for broken-up coffins and coffinfurniture. Little else than coffin wood is burnt in the house of the present gravedigger, who resides on the spot. The smell is at times so insufferable as to have produced in my own person a feeling of nausea, whilst I have often given utterance to sentiments of disgust and indignation, and have wondered that such barefaced insults to the living, necessarily preceded by the most disgusting exposure and dismemberment of the dead, should go unpunished.†

There is something essentially wrong in the morality of the people who permit, or the officials who wink at, such abominable and deadly practices.

I have noticed during many years that when accident has from time to time dragged into light the consequences, the inevitable results, of thrusting dead bodies into places utterly inadequate to contain them, parish officers and others, seemingly only just awakened from a long lethargy, start up, rub their

^{*} Morning Herald, Nov. 6, 1843.

⁺ Vide "Gatherings from Grave-yards," p. 231.

eyes, set their dead men's houses in order, by clearing up the surfaces of the grave-yards and vaults, and painting over the gates, entrances, &c., connected therewith. Thus St. Martin's ground, in Drury-lane, has recently been re-decorated, and a newly-painted notice-board tells the passer-by in the following terms that its insatiable appetite is yet unglutted:—

ST. MARTIN IN THE FIELDS.

Applications respecting Funerals in this Burial-ground, or inquiries relative thereto, must be made to

Mr. COBBETT, 115, Long-acre, or Mr. S. BEDFORD, 26, Villiers-street, Sextons.

By {HENRY JOSEPH HALL, } Churchwardens, Order {WILLIAM H. DALTON, } October, 1846.

The notice conveys, in other words, this intimation, that its managers invite—publicly invite—the living to pay them so much a-piece for every grave made in earth already so long saturated with corruption as to be utterly incapable of giving safe and decent, much less Christian, burial to their deceased friends.

I will give you an additional justification of the language above employed. man bowed down by misfortune, and labouring under chronic and incurable disease of the foot and ankle, had buried the bodies of his aunt and child in the grave-yard in Drury-lane. He had occupied during many years workshops dctached from his house, which overlooked the burial-place. Opposite and immediately underneath one of his workshop-windows were deposited in one grave the two bodies. Unable during many months to do any kind of work, he let his back premises, and requested the tenant to watch from time to time, and give him notice if any attempt should be made to break into his family grave. The old gravedigger had been succeeded by another, who, unintentionally perhaps, broke into the receptacle, of whose locality he had no previous knowledge. The relative of the deceased being instantly informed of the circumstance, hurried down stairs, crossed the yard dividing his house from the workshops, and with much difficulty and great bodily suffering reached the window, and there saw on the surface of the grave-yard the dismembered fragments of the bodies once so dear to him, that since their inhumation, as he informed me, he had a melancholy consolation in watching the spot where they lay, and almost selfishly congratulating himself that amidst the horrible up-turnings and desecrations he had during many previous years so frequently been compelled to witness, his own deposits had as yet escaped mutilation. I chanced to call on him soon after the occurrence, and found him in tears; his nervous system had received a violent and rude shock; the exertion he had made had been most injurious to him, and I have no doubt the combined circumstances shortened his passage to the house appointed for the living.

In the inquiries which I have been led to make relative to the interment of the poor, I have been forced to arrive at the conclusion that poverty is regarded

as a crime which pursues its object even beyond the grave. To the poor man the house of death is no resting-place.

In the month of August, 1840, a poor man died at a wretched hovel in Paradise-row, Chelsea, and was buried in the usual way by the parish. A judicial inquiry was instituted, and it was necessary to exhume the body. The grave-digger opened the hole, and after searching for some time, declared his inability to find it. The Coroner (Mr. Wakley) inquired of the summoning-officer the precise number of bodies interred in the same pit? The officer replied, to the best of his recollection, there were twenty-six bodies. The Coroner wished to be informed if they rammed them down with a rammer. The officer said he was not aware they resorted to such a process, but the bodies of paupers were packed together as closely as possible, in order to make the most of the space. The Coroner observed that such a system of burial was revolting to humanity, and reflected the highest disgrace on a Christian country. Such practices, however, often bring with them their punishment.

In March, 1841, another fatal proof was afforded of the shocking condition of the soil of the London grave-yards. The grave-digger of St. Bride's, Fleet street, and two assistants, were employed in opening a pit 20 feet deep for the interment of the dead. Two of the men, more experienced than the third, escaped; large quantities of earth, and an entire pile of coffins, fell upon and crushed the man who was unable to get out of the grave. Such was the rotten state of the ground that, as the men dug, it fell in, in masses, and upwards of seven hours were employed in the most severe and indefatigable exertions before his body could be recovered, although the labourers had every mechanical assistance that blocks, falls, pulleys, hooks, &c., could afford. His head -pressed against the end of the pit-was discovered after two hours' digging. As if in revenge for the insults offered them, two dead bodies had rested themselves on his chest, whilst his legs, jammed between other coffins, and embedded in the earth, could not for many hours be extricated. Thus has another "grave-yard" divulged to the many the secret of its condition, which had long, however, been known to the few. So effectually, so diligently, had this ground been worked, so well charged with rottenness and corruption, so well incorporated with the bones, flesh, and tissues of decayed and decaying human bodies, that the natural cohesiveness of the soil had been destroyed; the loose state of the ground was such that as fast as the workmen dug the earth it continued to fall in on all sides. The poor fellow Thompson, who thus miserably perished at the age of 22, was the sole support of an aged mother. Before closing my observations in reference to the above grave-yard, I may mention that I have been informed by a respectable person whose house is situated opposite the east end of the church, that frequently, in warm and moist weather, the stench arising from the church-yard is so obnoxious as to compel him to close his windows if they happen to be open at the time.

I will now trouble you to accompany me in our visit of inspection to another

place which was spoken of in terms of high commendation by a reverend gentle man who gave evidence before the Parliamentary Committee in 1842. Recent events have called the public attention to the interior management of the workhouse of St. Pancras. This poor-house is situated close to the burial-place belonging to the parish of St. Giles's. A letter addressed to Mr. E. F. Smith, and read by him at a meeting of the rate-payers of St. Pancras on the 28th of Sep. tember last, thus describes the condition of the pauper whilst living; we shall subsequently see how he is treated when dead. H. James, the writer, says, "six of us were confined in a miserable dungeon called the Refractory-room or Black-hole, to undergo a sentence of forty-eight hours' close confinement; and close enough it was, for this black-hole had no windows or fire-place. The door was cased or lined with iron, and locked and bolted outside. The weather then (August) being exceedingly warm, they complained of the close confinement; and it seems that as a punishment, a board was nailed over the small air-hole that previously existed on the north side of the workhouse; thus, the draft and air, he says, were entirely stopped, there was no ventilation whatever, and they were almost suffocated. Several holes made in the wall forming a portion of the Black-hole admitted the foul air and the stench from the adjoining buryingground." He further states, that the abominable stench that came in upon them turned them all quite sickly, there not being an escape for it; and that the confinement was inflicted as a punishment for applying for relief.

I took the earliest opportunity of making inquiries into some of the allegations of the letter I have just read to you. I conversed with James, who, with several other paupers was, on the Lord's day, looking through a window in the oakumroom strongly barred with iron. The window overlooked the grave-yard. James, the writer of the letter (the whole of which should be carefully read and well pondered over), informed me that he was quite prepared to substantiate all he had said: and, indeed much more.

At one end of the grave-yard wall is situated the infirmary or hospital for the sick, at nearly the other extremity the place of confinement of which we have above spoken. The locality of both these places must be most injurious, and therefore most objectionable. A wall divides the LIVING from the DEAD; the two erections are in fact formed on the side of the grave-yard by the wall itself, and there are grates and holes in the wall admitting the odour from dead bodies in every stage and degree of decomposition, which I know have been, and continue to be, deposited in the immediate neighbourhood of the wall of the hospital in pits many feet deep; in fact, they constitute literally a pavement of many thousands of dead paupers, festering and rotting under the noses of the afflicted living ones on the other side of the wall.

These deposits, as you are aware, have been increased by the remains of upwards of 2,000 human bodies within the last three months, in consequence of the up-turning of the burial-ground in the rear of St. Giles's workhouse, in Short'sgardens, Drury-lane.

Facts like these need no comment; they illustrate themselves. I will, however, secure the occasion to express my regret that the agents of these most shocking, and I think utterly unjustifiable, refinements of cruelty have, so far as I know, escaped the castigation of the press; and I am further desirous of recording my deliberate opinion and conviction, that in far too many instances many who call themselves GUARDIANS are rather the oppressers of the poor, for it is a lamentable fact, as I have proved to you, that those who are appointed to dole out the rations, such as they are, for the poor and unfortunate, are not guiltless of the crime of compelling those committed to their charge to breathe, to take into their blood, in fact, an atmosphere so offensive, so disgusting, and so deadly, as not to admit of any degree of comparison with any other.

As I have before remarked, the terms employed in describing the condition of this cemetery were so much more flattering than I thought it deserved, that soon after the Parliamentary Committee had concluded its labours, I again visited the place for the purposes of inquiry and inspection. It was admitted before the Committee, of which I have above spoken, that the average of burials was then nearly 1,400 per annum, the majority doubtless of the poorer class. lowing remarks, published by me in 1842, were fully justified by its then condition :- "An open pit dug under the wall dividing the cemetery from the workhouse (of St. Pancras) was full nearly to the surface with pauper bodies; the buzzing of myriads of flies in and over this pit might be heard at a considerable distance from its mouth. A short distance from it I found projecting into four open private graves four coffins, the tops of which were not more than 9 inches from the surface."* Such was the condition of things so much lauded before a Committee of the Imperial Legislature in 1842—such the boasted advantages it possesses over that disgraceful receptacle of corruption, the OLD GROUND situated round St. Giles's church.

These arc the unmistakable evidences of the "management" of the "clergyman who lives there, who is also the sexton, who takes a great interest in it, who makes it as acceptable as he can, whose arrangements have been considered very judicious." + On this I beg to observe that I consider the "arrangements" of which I have above spoken anything but "judicious" to the poor creatures immured in the workhouse, or confined in the Black-hole at St. Pancras, -anything but "acceptable;" and I think it an insolent stretch of authority, and an unprincipled application of the system of might against right, to subject living humanity to such an infliction.

Need I remind you that in the complex, everchanging, pecuniary relationships of English society, facts are constantly demonstrating that the rich man of to-day may become a pauper to-morrow? This case may in degree be yours or mine; and we may ask ourselves, if overtaken, after a life expended well and

^{*} Vide "Interment and Disinterment," p. 9. + Vide "Report on the Effect of Interment of Bodies," p. 75, question 1453.

worthily, by unexpected misfortune, which we in our earthly wisdom might perhaps deem undeserved, whether we, the descendants of the men who, under God's blessing, have made England, a mere speck as it were on the map, what she is among the great of the earth, whether we would not desire (and God forbid we may be compelled to seek it) more humane guardianship than that afforded within or without the division wall of the CEMETERY and the WORKHOUSE of St. Pancras; or, in plainer language, I would again ask, whether we should not be entitled to receive the treatment due to Christians whilst living—whether we should not be entitled to demand a Christian burial when dead?

There are, I should inform you, in most burial-places, several divisions of the same surface. These vary in price, and, it may be, for aught I know, in quality. However that may be, wide distinctions in life are followed by even greater distinctions, if not wider divisions, in death. The pauper whose feelings and sympathies are so rudely trampled upon during his earthly probation, has not even the melancholy satisfaction of knowing that he may repose in death with those whom he loved during life. He is accorded, however, the privilege of forming an unit amongst other undistinguishable masses of mortality; he may lie cheek by jowl with his fellows during a brief sojourn; he may rot in company with them in huge charnels—fit emblems of the depths and extent of his earthly misery: whilst, even worse than all, the poor creature, whose perception of right and wrong may be as keen, and even more discriminative, than that of those who chain him to so terrible a destiny, feels that he is breathing the sublimated particles of the dead bodies of those who, packed even closer than bales of inorganic merchandise, have gone before him to their eternal account.

Thus the pauper's history is soon told: He is subjected to inconceivable mental indignities, whilst his physical condition is deteriorated; and so injuries are inflicted, and strange anomalies perpetrated; and a nation that has been lavishly profuse of her blood and treasure on infinitely less worthy objects, commits a gross injustice by tacitly permitting those who have the most imperative claims upon her sympathics and assistance to be subjected to the brutal control of hard-hearted and too often unprincipled taskmasters, who inflict upon her poor the double punishment—the double curse—of a minimum of bad food—a maximum of bad air.

END OF LECTURE I.

SECOND OF A SERIES

OF

LECTURES

DELIVERED AT THE MECHANICS' INSTITUTION, SOUTHAMPTON BUILDINGS, CHANCERY LANE, JAN. 22, 1847,

ON THE ACTUAL CONDITION OF THE

METROPOLITAN GRAVE-YARDS.

By GEO. ALFD. WALKER, Esq., Surgeon.

"No burying-places should be tolerated within cities or towns, much less in or about Churches and Chapels. This custom is excessively injurious to the inhabitants, and especially to those who frequent public worship in such chapels and churches. God, decency, and health forbid this shocking abomination." * * * From long observation I can attest that churches and chapels situated in grave-yards, and those especially within whose walls the dead are interred, are perfectly unwholesome; and many, by attending such places, are shortening their passage to the house appointed for the living. What increases the iniquity of this abominable and deadly work is, that the burying-grounds attached to many Churches and Chapels are made a source of private gain. The whole of this preposterous conduct is as indecorous and unhealthy as it is profane. Every man should know that the gas which is disengaged from putrid flesh, and particularly from a human body, is not only unfriendly to, but destructive of, animal life. Superstition first introduced a practice which self-interest and covetousness continue to maintain."—Dr. Adam Clarke's Commentary on Luke vii. v. 12-15.

LONDON:

LONGMAN, BROWN, GREEN, AND LONGMANS, PATERNOSTER ROW; HIGHLEY, 32, FLEET STREET; AND ALL BOOKSELLERS.

METROPOLITAN SOCIETY

FOR THE

ABOLITION OF BURIALS IN TOWNS,

17, NEW BRIDGE STREET, BLACKFRIARS, LONDON.

(ESTABLISHED NOVEMBER, 1846).

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(WITH POWER TO ADD TO THEIR NUMBER).

SECOND OF A SERIES

OF

LECTURES

ON THE

METROPOLITAN GRAVE-YARDS.

LADIES AND GENTLEMEN,

We are again assembled for the purpose of discussing the moral evils which result from the practice of intra-mural sepulture.

In my previous Lecture, I glanced, very briefly, at the actual condition of the grave-yards and vaults of St. Ann's, Soho; the Globe Fields Cemetery, Globe Lane, Mile End Road; the "clearing out" of the vaults of St. Matthew's, Friday Street, and the vaults of St. Martin, Ludgate; the stealing of leaden coffins, and the treatment of their tenants; the capabilities and condition of the grave-yard in Drury Lane, belonging to St. Martin in the Fields, and the shocking desecrations necessarily resulting from its crowded condition.

I showed you that the practice of digging deep graves and pauper pits in Chelsea, in the grave-yard of St. Bride's, Fleet Street, St. Ann's, Soho, and in the Cemetery of St. Giles's in the Fields, was in every respect most objectionable; in a word, highly injurious to health, and destructive of morality.

I felt it my duty in concluding my Lecture to make some remarks on the treatment pursued towards the LIVING and the DEAD by those who have committed to their charge the custody of the one and the care of the other. Now, as I have never, during the whole period which my labours on this question have occupied, taken aught on credit or on the statements of others, but have examined for myself, judged for myself, and drawn my own conclusions; as I have never written a line anonymously, or retracted a single word of my published writings, I confess that I felt somewhat surprised that a special meeting of the vestry of St. Pancras should have deemed it either necessary or advisable to meet for the purpose of designating my statements as falsehoods. These gentlemen perpetrate on the one hand what they complain of on the other. They vouchsafe to censure the

conduct of Mr. George Mills, the Deputy Coroner for Middlesex, whilst they think to trample on my statements by a mixture of allegations and denegations, which I will leave to impartial judges to characterise as they deserve. Those who were present at my first Lecture will remember that although I spoke in general terms of the system of interment pursued in the Cemetery of St. Gilcs's, I thought fit to repeat some remarks published by me in 1842 having reference to the "management" therein adopted. On looking over my note-book I find the following: "A large hole close to the workhouse wall capable of containing two 'grown' coffins abreast, is partly filled with bodies. There are eight adults and seven children now placed there. The pit is open; scarcely a handful of earth covers this mass of corruption; the stench is almost insufferable." So much for my observations on the 13th June, 1842. This is a general statement; and although I was in possession of special facts, I forbore to mention them, and I assure you that for the honour of humanity I wish I was not in a condition to do so.

When, however, persons engaged in the perpetration of the most disgraceful acts persist in forcing them on public notice by hypocritical appeals to "truth and justice," they have to thank themselves alone for the exposure that overtakes them. Men (vestry-men, I beg their pardon) who talk of decomposition having "done its work," of "dry bones emitting no smell," "enclosed in their receptacles with the greatest decency," of "tombs uncovered" and "boxes opened," however well they, in their own estimation, manage their living paupers on the one side, are grossly or wilfully ignorant of the treatment pursued—systematically pursued, towards the dead on the other side of the wall.

I proceed to show you that my description of St. Giles's Cemetery in 1842 is perfectly applicable to the same ground in 1847, that time has not corrected abuse, nor has exposure been followed by amendment.

The disgusting desecrations of 1842 have been repeated in 1846; they will be continued in 1847, and must be pursued so long as the present system of "management" is allowed to remain in operation.

But I hasten to the facts; they shall be proved by witnesses on whose testimony no slur can be thrown.

The first witness, then, whom I would now introduce to you, is Mrs. Lydia Drew, of 15, Cook's Row, St. Paneras. I have here the depositions made by this lady, signed by herself, and if I do not read them to you it is merely because I desire to economise our time by condensation.

On Friday, the 6th November last, Mrs. Drew, from the back-room window of her house, which overlooks the grave-yard, saw two men at work. The one was engaged in dismembering a recently interred body, the other was digging a hole near the wall, for the reception of the mutilated remains. Portions of the body, apparently quite fresh, together with the shroud, were extracted with a hooked fork, placed in a barrow, and removed to the "hole;" a human head,

covered by and intermixed with dirt, was next shoveled up—literally tossed up on a shovel, and thrown into the barrow. When the body, thus broken up, had been concealed in the hole, it was barely covered with earth. A body had been buried in this grave five weeks previously, and "I believe it," says Mrs. Drew, "to have been the same body which was used in this inhuman manner."

Mr. C. Comyns, who resides next door, had his attention directed to the occurrence by Mrs. Drew. Mr. Comyns went into the church-yard; saw the fresh blood of the recently mangled corpse, covering a surface of a foot square on the wall of the workhouse of St. Pancras, down which it ran. He sought the minister of the place, who is, or was, the sexton; insisted on his accompanying him to the spot; pointed out to him the mid-day evidences of the guilt of his agents, who were then engaged in trampling on and filling in the coffin, from whence they had just previously so brutally ejected the body.

A spirited individual, Mr. William Harrison, at once brought the matter under the notice of the police authorities. His allegations were found, upon inquiry, to be perfectly true, as were those of Mrs. Drew, Mr. Comyns, and Mr. Potter; indeed, they were not denied by the grave-digger, named Smith, who attempted to justify them on the plea of necessity and established custom.

It appears that the land for the Cemetery, as it is called, was purchased of the parish of St. Pancras; its vestrymen are, therefore, jealous of its honour, and they have gone out of their way to testify thereto. Old St. Pancras grave-yard and the the young St. Pancras poorhouse may be likened to mother and daughter, whilst St. Giles's Cemetery, happily placed between parent and child, has, between two stools, fallen to the ground.

So much, then, for the men of St. Pancras in "very full" vestry assembled, and its committee of grave-yard inspectors, who have so complacently constituted themselves into a society of mutual congratulation. So much at present for the grave-yard on the other side of its workhouse wall, and the "management" pursued therein. We have given perhaps too much time to a refutation, that ought not, in decency, to have been required; however, it has been asked for and obtained.

Since last we met, the cause which I advocate has made rapid progress. Yet, much yet remains to be done.

In this country, distinguished above all others for a tenacious adherence to old customs, no matter how absurd, injurious, or reprehensible such customs may be, the progress of reform has always been slow. Yet, if ever there was a subject calculated to excite public attention, to arouse the indignation of the good, and ensure the aid of every philantrophist, it is the cause for the promotion of which we have this night met together.

Let any one look with an unprejudiced eye at the actual state of the Metropolitan burying-places, densely surrounded, as they too generally are, with a swarming living population. Let him examine the vaults crowded with dead, over which frequently, divided by a thin covering, he must sit during divine service. Let him reflect, that in the body and aisles of many churches and chapels, graves and vaults are employed for the interment of the previous living worshippers, and that the occasional opening of such vaults, charged with deadly products, has produced serious, and even fatal, disease. Let him further reflect, that the entire practice is left to the "management" of the lowest class of the community, whose brutal fool-hardiness is stimulated by drink, and by the consciousness that their lives are worth little to themselves, and less to society. Let him think of these things, and let him ask himself whether alteration of the present system be not imperatively required, and that immediately.

The more one contemplates the serious injury done to the population of our large towns by our present system of internal sepulture, the more is he lost in wonder that the people, generally sufficiently alive to a perception of what they consider prejudicial to their interest, do not rise en masse, and demand as an act of justice, and as a matter of right, that many, if not all, these places should cease to be employed. If the necessity of suppressing the nuisance complained of has, years since, been by others tacitly admitted, how much more necessary is it, as time progresses, and population continually increases, whilst the burial-places are comparatively decreasing, that all who are interested in the well-being of the community should be up and doing.*

Let us now enter upon the examination of a locality that first excited my attention, and led to my subsequent inquiries.—

The Portugal Street burial-ground, known also by the singular name of the "Green-ground," is a small patch of land about one-third of an acre in superficial extent. In this place the father of jokes, Joe Miller, has a gravestone erected to his memory. Situated at the top of Clement's Lane, Strand, in the vicinity of Clare Market and a shambles, and immediately behind one of our metropolitan hospitals, it has been used as a burying-place beyond the memory of man.

As the numbers annually buried in this ground are nearly ten times as many as they ought to be, you will not be surprised to hear that it is saturated with human putrescence,—that the necessity of obtaining room gives rise to the most revolting indecencies. Of some of them I have been an eye-witness. I have seen the heaps of coffin wood—of wood with perfectly fresh cloth covering; I have seen bones on the surface ready for removal; and I have experienced the effects of the effluvia which the ground almost constantly throws off from its surface. Others have witnessed similar desecration. A writer in the *Times*,† who states that twelve of his nearest and dearest relations were buried in that ground, saw two men employed in carrying baskets of human bones from one portion of the burial-place to a small gate; and pertinently asks, where does this gate lead to?

^{*} Interment and Disinterment, p. 4.

[†] Gatherings from Grave-yards, p. 151.

James Lane, of No. 30, Clements Lane, who gave evidence before the Parliamentary Committee (question 717), being asked, What is the mode of interment practised? answered, digging a shallow grave at times, and then a few weeks afterwards they will go a good depth. There was one occasion when my wife noticed it more than at any other time; there was a corpse buried on a Sunday from the hospital; there were two females following it; what made us take particular notice of it was, that they came from the hospital, and went out at the gate across the ground towards Clare Market, and then came back again to the hospital. In the course of about a month afterwards they opened this grave again, and when they opened it they brought the coffin up in pieces, not split, but the sides were taken from the head and foot-board; they brought it up without splitting, just as you might take a case to pieces, or the lid off a box. After they had brought up the lid, and laid it on the ground, they brought up the bones with the flesh hanging in tatters upon it; then about four shovels full of soft substance came up, and my wife called to the person in the next room to witness the thing; they called out to the men; the men made them no answer. but turned their backs towards the houses to try to avoid the people seeing it, but the window being high, we could see every thing that came out of the grave as plainly almost as if we had been close to them; they were not far off.*

Lane also stated that he has been repeatedly awakened in the morning by the noise of men breaking up the coffins in order to make room for the dead and fire-wood† for the living. Many times he and his wife have seen a coffin disturbed; that is to say, cut through and broken up within six weeks after it was put down. Colonel Fox asked him, "What became of the contents of the coffin?" The answer is worthy of record,—"It is mixed with the mould. The body, which was brought up piece-meal, with the flesh hanging to the bones, and stuff brought up in shovels without bones, was let down in a solid lump again on the top of the coffin; and the women called out to the men, and told them they had better take people's money out of their pockets, and not bury the dead at all, or bury them without a coffin. It is a shocking place for disturbing the dead."

Michael Pye, the grave-digger, fully corroborated the evidence given by Lane; and, here let me remark, that if reference is so frequently made to grave-diggers, it is because persons of that class are precisely those most likely to be acquainted with the day and night doings of the "managers" of the dead. This Pye proved that in the "Green-ground" the diggers were compelled to find a grave, no matter how, or where, or what lay beneath the spade. When even these wretched men evinced some compunction, some faint glimmering of decency or moral feeling, epithets the most disgusting and approbious were applied to them.

William Chamberlain, § who was connected with this same ground for many

^{*} Parliamentary Report, p. 32. † Idem, p. 34. ‡ Idem. p. 62. § Idem, p. 129.

years, enables us to reveal its secrets still more completely. The evidence of this man, an eye-witness of all that he relates, is so crushing that I must beg permission to refer to it at some length. For seven years Chamberlain never opened a grave in the Portugal Street ground "without coming into other coffins of children, grown persons, and what are termed in grave-yard parlance, 'odd sizes.'" These were indiscriminately cut through, and the bodies in them so perfect that males were distinguishable from females, were chopped and cut up, with tools specially made for the purpose. Oftentimes were the mutilated remains thrown up behind the boards on which the mourners were supported, and after the farce of burial was concluded, the flesh was thrown into the recent grave, and the coffins taken away for fire-wood. This abominable practice, it seems, was peculiarly applied to children.

"I have taken up," says Chamberlain, "the children and moved them within a week after they were buried, and placed them in a different spot, not above a foot-and-a-half deep; sometimes I have placed them nowhere. It was done by orders."

This placing "nowhere" consisted in breaking up the coffins, cutting the flesh into pieces, and then burying it wherever a hole could be found. For the above horrid purpose, there were, as I have informed you, suitable instruments provided, instruments never required for digging a grave.

In 1843, a disgraceful scene, which nearly gave rise to an outbreak of public violence, occurred in this ground. The body of a man named Jacob Burns, respectable and once wealthy, was brought for interment; as he was poor, the grave-diggers thought that "a hole" would suffice instead of a grave. They endeavoured by means of heavy logs of wood to force the coffin into the place they had prepared for it, but were prevented by the spectators, whose indignation became aroused; and no wonder that indignation should manifest itself, for when the eldest daughter of the deceased, with tears in her eyes, implored the grave-digger not to insult the remains of her father, the only reply she received was, "where is your black?"

Fearing violence from the excited multitude, they thrust the coffin upright into the hole, and having covered it with a sprinkling of earth, left it with the head close to the surface. This unseemly method of disposing of an old and respectable inhabitant of the parish so irritated the numbers who had crowded into the church-yard, that the officials became alarmed, sent for the authorities, and gave a public promise that the body of Mr. Burns should be interred on the following day in a decent manner. The gravediggers were at work before daylight on the following morning; yet, with their best "management," the lid of the coffin was only one foot eight inches from the surface.

Such is the condition of the "Green-ground,"—such the deeds perpetrated in a so-called sanctuary of the dead. Yet at one extremity of this ground, so situ-

ated that the living invalids are compelled to breathe the putrid miasmata of this charnel-house, has an hospital been established for the cure of disease.

How long will those in authority violate the simplest laws of Public Health? If the atmosphere of a grave-yard be disgusting to persons in health, and injurious to all who inhale it, what shall we say of the policy that exposes the sick and the dying to its influence?

From the "Green-ground" in Portugal Street, permit me to lead you to a distant part of the town, to the "New Bunhill Fields." And here it may be asked in limine, if the disgraceful proceedings which I have just recorded take place in our parochial grounds, with the cognizance of high dignitaries and respectable officials, what may we not expect from the "management" of private burial-places where the dead are received without limitation as to number, without control as to locality, where the extent of desecration is proportioned to the insatiable appetite of the unscrupulous proprietors?

The New Bunhill Fields burying-ground is situated in Devereux Street, Great Dover Road. It contains about two-thirds of an acre of ground, and receives every year about 1,560 bodies. This gives an annual average of 2,32 interments to the acre, the proper, the decent, average being, as I have so often endeavoured to impress on you, 136. We thus find that 17 times as many bodies are buried every year in this ground as ought to be; and thus are you prepared not only to believe the statements which I am about to submit to you, but to foresce that violation of the tomb must be inevitable—must be a work of daily necessity.

And now for the statements. Valentine Haycock informed the Parliamentary Committee of the condition of the ground, and the practices carried on therein. Haycock worked as grave-digger in that ground during ten years. Let us examine his evidence, for he being dead yet speaketh. He says, the place had been open during eighteen years, and had received nearly 21,000 bodies in the year 1842. Twenty-one thousand corpses in an acre of ground and in the vault of the chapel where the living worshippers assemble! Perhaps 12 out of the 1,500 bodies in the vault may be placed in lead! The original proprietor of this place, named Hoole, was resting by the side of his daughter in an inner vault, separated by iron railings from the masses of bodies in the larger one, when I visited the place some years since.*

Haycock is asked for an explanation of the mode by which 20,000 coffins had been placed in an acre of ground. He says, we dig 10 feet, and if we can get 12 we do, and then we pile them one upon the other as many as the grave will hold, perhaps six or eight or nine in it; then, when that is full, we dig another grave close by the side of it, and put another nine or ten therein; that they were piled one on another, just as if you were piling up bricks. He says the smell was

^{*} Gatherings from Grave-yards, p. 181.

"dreadful beyond all smells;" that he, himself, raised the ground all over the place about six inches; that the burial-service was read over the graves by a patten-maker, who lived close by. "He has £20 a year," says Haycock; "he is a patten-maker; he lives close by, so it suits him very well."*

But this is not all. Haycock stated, that, at one time, bodies were stacked in the vault at the rate of £1 each for six months,—Lodgings for the dead!!! What became of them after the expiration of the six months' tenancy he does not say; but the history of London grave-yards will readily suggest to you what was the process of ejectment.

The ways of the wicked, however, are not always prosperous, and a just Providence sometimes demonstrates his wrath by the nature of the punishment which overtakes the guilty. This same Hoole—this letter of lodgings to the dead, at the rate of six months certain, fell a victim to his beastly occupation. A report appeared in a morning paper that "his vault was over the shoes in human corruption." The fear of the press inspired him with a sudden desire to set his house in order; he came in from the country, worked in his shirt sleeves at the piles of decaying matter heaped up in the vault, went home ill, and, together with his "head man," died in a few days. So may the unrighteous perish!

Haycock, who died of consumption about nine months ago, told me some years since that "the stench in digging graves in that ground was horrible; that he had frequently scrambled out of the hole he was making,—that his eyes struck fire,—his brain seemed in a whirl, and that he vomited large quantities of blood."† Haycock, although an exceedingly strong man when he commenced grave-digging, offers another evidence, amongst too many others, of the power of emanations from the dead over the health of the living. I knew him, and attended him occasionally, during many years. I saw him droop, die inch by inch; and although the disease was held under control during a short period, his life paid the forfeit.

This wholesale clearing out of vaults and grave-yards to which Hoole and others have fallen victims, is not, I regret to say, confined to private speculations of the kind we have undertaken to consider. It exists in our parochial burying-grounds; it has been deliberately sanctioned,—nay, practised by men calling themselves Christians, whose "management" of the poor when dead is, in some instances, a fit counterpart of the treatment which they vouchsafe to them whilst living.

There is a place in the Borough called "Cross Bones," the *poor-ground* attached to St. Saviour's church, Southwark. This ground had been closed for a short time, because it was impossible to find space in it for a single body.

^{*} Report on the Effect of Interment of Bodies, p. 51.

[†] Burial-Ground Incendiarism, or the Minute Anatomy of Grave-digging in London, p. 6.

On the 20th February, 1839, a vestry was holden for the purpose of considering the propriety of re-opening it, as two years (the time generally allowed for the destruction of the bodies) had elapsed. It was moved that it be re-opened, the mover of the resolution stating, that in consequence of the aversion generally manifested to bury in what is named the "Irish corner," many bodies were taken out of the parish to be buried. This corner, however, had been cleared, and room made for about a thousand bodies. One gentleman urged, that "if the graves had been made deeper, hundreds more corpses might have been buried there." Another admitted that it really was too bad to bury within 18 inches of the surface in such a crowded neighbourhood; and it was even hinted that "the clearing," viz., the digging up and the removal of the decayed fragments of flesh and bones, with the pieces of coffin, &c., would be the best course, were it not for the additional expense."

The funds of the vestry and the HEALTH of the living were here placed in opposite scales,—the former had the preponderance.*

In the various investigations which have been made for the purpose of discovering the actual condition of our grave-yards, and of bringing to light the practices carried on within their boundaries, very great difficulty, as you may well suppose, was experienced in obtaining the evidence of respectable witnesses. Men of station and character were unwilling in some instances to come forward and acknowledge the existence of abominations which, however unwillingly they witnessed, they had not the moral courage to endeavour to suppress.

I would direct your special attention to the testimony of the Rev. Dr. Knapp.† This gentleman is an impartial, though, perhaps, an unwilling witness. For 27 years he was curate of St. Andrew's, Undershaft, and during the whole of that period, as he informs us, his mind constantly dwelt on the distressing state of the church-yard.

"I have had (says the Rev. Doctor) very many opportunities of observing the accumulated mass of bodies and matter decomposed or in a putrescent state, with abominable exhalations, to the annoyance frequently of myself while performing my duty and of those attending the funeral."

The grave-yard here alluded to is, I may mention, a miserable hole, measuring 795 square feet, a surface not larger than a good sized drawing-room. Yet, in this narrow spot are Christian burials yearly performed in the proportion of 1,278 interments to the acre.

Keeping this fact in mind, you will readily believe the witness when he states that "his friends and the faculty advised him to leave town altogether if he wished to save his life;" that the stench which pervaded the church—the house of God—was so great as frequently to drive members of the congregation home, attacked by sickness; that scarcely a grave could be made without digging up

^{*} Gatherings from Grave-yards, p. 177.

[†] Parliamentary Report, p. 45.

coffins; that the church-yard stands three or four feet above the level of the church, raised up by bodies; that holes were dug behind the church, into which were cast, in order to keep them out of sight, the bones which were perpetually thrown up on the surface; and, finally, to crown all, that 10 tons of lead, taken from coffins removed from the vaults of the church in order to make room—10 tons of lead were sold, and the proceeds paid over to the church-wardens.

On this humiliating fact I shall make no comment. Words would only weaken the deep and lasting impression which it must leave on your minds. Of the fact there cannot be a shadow of a doubt, for Mr. Harvey, the parish-clerk, when asked—"What do they do with the dead bodies or the coffins they cut through?" replied, "a great deal of wood has been consumed in the fire-places." In what fire-places?—In the church, and the lead has been taken away and sold. For whose profit?—The parish. The money has been paid over to the church-wardens.

That the dead disappear thus rapidly a few weeks—a few months—after their committal to the earth, which we have been accustomed to regard as a resting-place, there can be no longer a doubt; but some facts described before the Parliamentary Committee, clouded it is true by suspicion and surmise, would lead to the horrible conclusion, that the dead bodies of the poor may be disposed of before they can reach their last abode. This suspicion, which I can only designate by the word horrible, was thrown out, not by a "degraded" grave-digger, nor in a moment of zealous excitement, it was solemnly and deliberately expressed by a clergyman of the Established Church; by the Rev. Dr. Russell, rector of Bishopsgate.* To prevent any mistake, I shall give the reverend gentleman's own words:—

"It struck me (says Dr. Russell) in making inquiry into the matter, that it may be worth the consideration of this Committee to ascertain, with regard to persons who die, where they are buried? I sent to the registry-office to inquire how many persons have been returned as dead in the parish for the last four years; in the year 1838, 360 deaths were registered, but we only find 261 burials, and 99 therefore are not at all accounted for; in the year 1839, 356 deaths were registered, but only 202 were buried in the parish, leaving 154; in the year 1840, there were 288 deaths registered, and 138 only were buried, leaving 150; in the year 1841 there were 340 deaths registered, but only 194 buried. This has raised in my mind a great inquiry as to what has become of all these bodies; it has created considerable doubts in my own mind as to the way in which the bodies have been disposed of."

The "undisposed" could not have been buried in the cemeteries, because the returns from them showed that only nine persons from Bishopsgate had been interred in those extra-mural grounds during the period alluded to.

^{*} Parliamentary Report, p. 138.

From this account, then, it appears, that of 1,244 persons who died in the parish of Bishopsgate, only 795 were buried; at least, no trace of the burial of the remainder could be discovered.

I have so frequently insisted on the self-evident proposition that BULK MUST OCCUPY SPACE, that I am almost tired of repeating it. Yet upon this axiom the whole question rests. When you fill a limited space of ground with a certain number of bodies, it is impossible to obtain room for a single additional body without displacing and dismembering many others. When ten times more than the proper number are buried, you cannot continue the same rate of interments without clearing out the whole of the graves, without removing or cutting up the bodies, each year. Hence, I say, and I repeat it, that indecent, immoral, and unchristian practices are inevitable so long as we continue our present custom of interring the dead in the midst of the living. I shall subsequently demonstrate to you, that the same consequences must follow the same causes; and although in this brief disquisition we have no space to speak of the inevitable result of these brutal upturnings of dead men who are so foully and shamefully ejected, you will, I trust, ere this series of Lectures are completed, be convinced that the immorality of such practices is only to be equalled by their unhealthiness.

The moral and physical evils of intra-mural sepulture are not confined to London. They exist in all our large towns; and if they have hitherto escaped exposure and denunciation, it is because few are found who will devote the days of their youth and the fruits of their industry to the unrequited toils of a benefactor of the public.

The evils of intra-mural sepulture, I repeat, exist in all large towns. Take Birmingham for example. In the parish of St. Mary, which is situate in the very heart of the town, there is a grave-yard of an about an acre in extent. It is surrounded by a square of dwelling-houses. In this acre of ground the Rev. Mr. Hewson, curate of the parish, proved that 60,000 bodies had been interred. For many years he had been accustomed himself to inter 1,200 annually, just nine times as many as should have been received. Let us hear Mr. Hewson's description of the results produced by this violation of policy and decency:—

"I have myself buried between 1,100 and 1,200 in the course of a year there. On Sundays there are from twenty to thirty buried; all those corpses are brought within the church between the services, and I can safely say that the smell and effluvia is most abominable and disgusting, and very much calculated to keep away a great many persons from the afternoon service, which immediately followed the burials."*

And, again, he says—

"The church-yard is so very full that in digging for a fresh grave they frequently turn up bones and pieces of human flesh; and I am convinced that the

^{*} Parliamentary Report, p. 97.

health of the square in which this stands, which is a very important square in Birmingham, cannot be improved by that."

Struck by this answer, Colonel Fox asked-

"You say there were pieces of human flesh; would not the coffin protect them?—They were sometimes obliged to go very deep, and to try every possible means of finding room for fresh coffins."

Finally, the reverend gentleman observed—

"I have heard persons constantly complain of their friends' coffins being disturbed, coming and crying and lamenting to me and other clergymen, that the bodies of their children and their friends were constantly knocked about by seeking for fresh ground; but, as far as my information goes, this extends to all other large towns, and not only to other large towns, but to many country parishes."

From Birmingham let us proceed to Leeds, where we obtain evidence of similar practices from the testimony of Mr. Robert Baker, Surgeon, who has resided in Leeds for the last twenty years.

In the parochial burial-grounds, instead of 28,000 interments, which there ought to have been, no less than 142,293 burials have taken place. Hence the necessity of constant desecration to make room for new tenants, hence the repetition of acts which shock the feelings of survivors, while they spread disease and death amongst the surrounding population. In illustration, Mr. Baker related the following case, which I shall give you in his own words:—

"I was in the ground last Wednesday (April, 1842) collecting information, and the sexton took me to a grave which they were then digging for the interment of a female; two feet below the surface they took out the body of a child, which was said to be an illegitimate child, and it had been buried five years; below that, and two feet six inches from the surface, were two coffins side by side, the father and the brother of the person who was then going to have the interment; the father was buried in 1831; the coffins were opened, the bones were in a state of freshness; the matter had been putrified off the bones, but they were perfectly fresh; they were thrown on the surface; and at that time the person came in who was going to have the interment; he spoke to me about it, and made use of this expression, 'Look! these are the skulls of my father and my brother, and the bones of my relations, is not this a bad business? It cannot, I suppose, however, be helped.' He was very much shocked; he stayed there a short time, and then went away a little distance.'**

"I examined the grave," continues Mr. Baker. "The bottom part of the coffin was chopped up and thrown on the surface, and I examined it; the residue was in an effervescent, putrescent state; after the bottom part of the coffin had been taken out, a little soil was taken out again, and there were two other coffins side by side, containing the mother and the grandmother of the same person. These coffins were broken up in my presence and thrown out, and then there was gravel underneath; all these bodies had been buried at the short distance of two feet six inches; and then, at a depth of one foot six inches more, lay other coffins

^{*} Parliamentary Report, p. 143.

below them on gravel, and they were thrown on the grave side in the way I have described to the Committee. I asked the sexton whether it was absolutely necessary that this should be, and his answer was, that it was quite impossible it should be otherwise; that it was not a single occurrence, but was an everyday occurrence when they had to inter in that grave-yard; he mentioned two or three other cases of an exactly similar nature, which it is not needful to repeat, but which had occurred within the last ten days."

A case somewhat analogous to the one just related occurred in the "Greenground," Portugal Street, Lincolns Inn Fields. The father of John Eyles, a grave-digger in this ground, was buried there. "One day I saw them," says Eyles, "chopping the head of his coffin away; I should not have known it if I had not seen the head with the teeth; I knew him by his teeth; one tooth was knocked out and the other was splintered; I knew it was my father's head, and I told them to stop, and they laughed, and I would not let them go any further, and they had to cover it over."

Let us now take a passing glance at two places which have obtained an infamous notoriety,—Enon Chapel and Spa Fields burying-ground.

We will commence with the former. Enon Chapel is situate on the western side of Clement's Lane, Strand. It is surrounded on all sides by houses, which are crowded with inhabitants, chiefly of the poorer class. The upper part of the building was opened for the purposes of public worship on the 16th April, and the first body was deposited on the 6th of October, 1822.* A boarded floor separates the chapel from the cellar beneath, which has been devoted to the dismemberment and desecration of the dead.

This lower part, kitchen, cellar, or "DUST-HOLE," call it what you will, which used to be entered by a crazy flight of five or six wooden steps from the inside of the chapel, its dim and murky area being illuminated by the miserable light of a few candles, which served to render its horrors and its darkness more apparent, was for many years the cheap burying-place of this miserable, this wretched district. The reverend proprietor thinking himself as much entitled to a vested right in pestilence as some others, stuffed his chapel in the very midst of human habitations, and, as I have informed you, commenced his exhortations to the living, and his "management" of the dead, almost at the same time.

The burial-place measures in length 59 feet 3 inches, or thereabouts, and in width about 28 feet 8 inches, so that its superficial contents do not exceed 1,700 square feet. Now, allowing for an adult body only 12 feet, and for the young, upon an average, 6 feet, and supposing an equal number of each to be there deposited, the medium space occupied by each would be 9 feet; if, then, every inch of ground were occupied, not more than 189 (say 200 in round numbers) could be placed upon the surface; and admitting (an extravagant admission most cer-

^{*} Burial-ground Incendiarism, or the Minute Anatomy of Grave-digging in London; by G. A. Walker.

tainly) that it were possible to place six tiers of coffins upon each other, the whole space could not contain more than 1,200; and yet it is stated with confidence, and by credible authority (as you shall presently see), that from 10,000 to 12,000 bodies have been deposited in this very space within sixteen years!

The "dust-hole," as it is familiarly called by undertakers, is entered from the inside of the chapel by a trap-door, and the joists which support the floor of the chapel are not even covered with the usual defence—lath and plaster.

Let us now proceed to reveal from the mouths of competent witnesses the modes of "management" which enabled the reverend proprietor to derive during a period of about six years, that is, from October 6, 1822, to December, 1828, the sum of NINE HUNDRED AND FIFTY-ONE POUNDS FIVE SHILLINGS for burials in a cellar measuring 59 feet by 29 feet, while he rendered it perhaps the most infamous of the charnel-houses of this Metropolis.

Mr. Samuel Pitts, cabinet-maker, of 14, Catherine Street, Strand, thus describes the place:—At the time I attended it, which was from about the year 1828, for six or seven years, there were interments, and the place was in a very filthy state; the smell was most abominable and very injurious; I have frequently gone home myself with a severe headache, which I suppose to have been occasioned by the smell, more particularly in the summer time; also, there were some insects, something similar to a bug in shape and appearance, only with wings, about the size of a small bug. I have seen in the summer time hundreds of them flying about the chapel; I have taken them home in my hat, and my wife has taken them home in her clothes; we always considered that they proceeded from the dead bodies underneath; there was nothing but the thin boards between the depository and the chapel, and there were openings between owing to the shrinking of the boards.*

In order to explain the difficult problem of placing in such a receptacle 10,000 or 12,000 bodies, Mr. Pitts stated that numbers of the bodies had been removed to make room for others; that the minister's copper, employed for the purposes of washing, was warmed with coffin-wood, and his kitchen fire was kept going with the same material: that a sewer ran through the very centre of the vault, so situate that any inconvenient surplus might be quietly disposed of; and, finally, that a Sunday School for children was held over this abominable receptacle of putrid and decaying mortality.

But our evidence does not rest here. The removal of human remains—the clearing out of the place, was distinctly proved by Mr. William Burn, the master carman who did the job. The sewer, to which I have just alluded, was enlarged and made more secure by the Commissioners of Sewers. Mr. Burn says the work was superintended by persons connected with the office of the Commissioners; that he removed upwards of sixty loads of "dust" from the hole—so

^{*} Parliamentary Report, p. 8.

much "rubbish," as he called it, which was shot at the foot of Waterloo Bridge. The rubbish (among which, he says, was a human hand as perfect as his own, and which did not appear to have been buried a month,) consisted of human bodies in a state of putrefaction. This rubbish assisted to fill up inequalities where "rubbish might be shot." Mr. Burn says that, to him, the work was most disgusting and repulsive. "He never saw such a sight, with coffins broken up." When questioned touching the sewer, Mr. Burn replied, "I have no doubt whatever that bodies have been slipped down the sewer."

Another witness, Mr. George Whittaker, undertaker, was examined by the Parliamentary Committee as to the condition and "management" of this same Enon Chapel. I shall, with your permission, read a portion of Mr. Whittaker's evidence—

- "I have seen coffins broken in the graves, and shovelled away to make room for fresh comers.
 - "And the bodies cut to pieces?—Decidedly so.
 - "How do you mean?—Cut with the spade.
- "Were those very old coffins, or had they been placed in the grave only a short time?—I have seen both old and nearly new coffins destroyed.
- "To make room in the grave-yard?—In the places where funerals were to take place.
 - "Has this often occurred?—Yes, it is a case of almost every-day occurrence.
- "To what grave-yards are you particularly alluding?—The one I particularly allude to, is that of Enon Chapel.
 - "You mean the vault under Enon Chapel?—Yes; it is more like a cellar.
- "Have the kindness to describe to the Committee the state of that vault?—It is dreadfully full. On one occasion when I went there, a covered coffin was brought up to the surface; the body seemed as though it had been scarcely buried a week; the hair was on the head; the flesh was fresh, and the inside of the coffin was strewed with quick-lime apparently; it looked like white dust.
 - "Colonel Acton.] When was that?—Some time ago.
 - "Can you mention the year?—It is within these two years.
- "Chairman.] It has been stated by a former witness that 12,000 people were buried there in a space not above 59 feet by 29 feet; do you confirm that evidence, or do you dispute it?—I should consider that there had been fully that amount.
- "How do you account for so many bodies being placed in so small a space?—I cannot account for it.*"

You thus perceive that the "management" of Enon Chapel receptacle chiefly consisted in the simple process of breaking up the coffins, the application of quick-lime to hasten the destruction of the bodies, and the carting them off by wholesale to the nearest available spot of ground. But these facilities did not keep pace with the cupidity of this "manager." He seemed to be desirous of saving the cost of carting away the human "rubbish" even at the charge of

^{*} Parliamentary Report, p. 20.

half-a-crown a load. He made a nearer cut; having disposed of the soft parts of the bodies by the application of quick lime in the place where they were deposited, under the flags of his kitchen-floor, the fire of which was fed by coffinwood, were the bones of the disturbed concealed. This fact was brought to light in the month of August, 1844.

A man named Fitzpatrick, in the employment of Messrs. Firmins, buttonmakers, was in occupation of the house attached to the chapel, formerly the residence of the late Mr. Howse, the minister. The man, desirous of deepening the kitchen of the house, the ceiling being very low, employed John Mars, who proceeded with the work during several successive Sundays. The flags composing the floor, extending from back to front, and occupying the whole length of the house, were taken up, and a vast quantity of human bones were found, covering the whole of the floor of the kitchen. The labour, although persisted in, was hopeless; for, after thrusting an enormous quantity of bones through a door made in the brick wall dividing the burying-place from the kitchen, the man gave up the work in disgust and despair. He found the less destructible portions of this army of dead, although passive in their resistance, beyond his "manage-Having dug upwards of two feet in depth, in various directions, having literally filled, as far as the space would permit, the cellar, and even the opening, with human bones, finding, after his utmost efforts, his labour must be interminable without actual removal of the enormous masses of bones by which he was surrounded,—the man, although willing perhaps to fulfil his engagement, yet failed to do so.

I should inform you, that the door above mentioned was made many years since, but was hidden from the view of persons attending the funcrals of their deceased relatives or friends by a screen made principally of the same materials of which the sides of the font in the chapel are composed, viz., the wood of coffins.*

I have several times visited this Golgotha, and have as often asked myself,

"Can such things be,
And overcome us, like a summer cloud,
Without our special wonder."

I was struck with the total disregard of decency exhibited,—numbers of coffins were piled in confusion, large quantities of bones were mixed with the earth, and lying upon the floor of this cellar (for vault it ought not to be called); lids of coffins might be trodden upon at almost every step.

My reflections upon leaving the masses of corruption here exposed, were painful in the extreme; I want language to express the intense feelings of pity, contempt, and abhorrence I experienced. Can it be, thought I, that in the nineteenth century, in the very centre of the most magnificent city of the

^{*} Burial-ground Incendiarism; or, the Minute Anatomy of Grave-digging in London; by G. A. Walker.

universe, such sad, very sad mementos of ignorance, cupidity, and degraded morality, still exist? Possibly I am now treading over the mouldering remains of many, once the cherished idols of the heart's best and purest affections; here, thought I, may repose one who has had his cares, his anxieties,—who, perchance, may have well fulfilled life's duties, and who has tasted its pleasures and its sorrows,—here he sleeps as I must sleep; yet I could not but desire that I might have a better resting place—a *Christian* burial.

Having thus far disclosed to you the vile and immoral practices engendered in many of our Metropolitan grave-yards, let me close this Lecture with a very brief account of the circumstances connected with the Spa-Fields prosecution—the discomfiture of "Manager" Bird, and the establishment, for the first time at least in this country, of the important principle, that grave-yards, such as I have described them to you, and such as they inevitably are in all crowded towns, are public nuisances, not only indictable, but punishable at common law. This I consider to be the greatest triumph yet obtained, and if the principle were more frequently carried into practice by those having authority, abominations most disgraceful to our character and most destructive of our health would soon cease to exist amongst us.

Of the result of the contest, although protracted and severe, I never doubted an instant. There is an individual, of whom it is impossible to speak too highly, who, sharing the annoyance, insult, and expense of this exposition, was constant and persevering to the last. To that gentleman, Mr. Robert Watt, of 14, Exmouth Street, Clerkenwell, I desire to return my sincere thanks for his able assistance and unflinching co-operation; and I cannot help observing, that if men of his stamp were less rare amongst us, such abominations would be swept away with a force and frequency, that would leave the locality of similar plague-spots to be pointed at as the curses of an age that permitted their existence, only because it was so little informed of the "MANAGEMENT" of their proprietors.

The Spa Fields burying-ground contains 42,640 square feet, and would inter (decently) about 1,361 adult bodies. Within a period of fifty years, about 80,000 bodies have been deposited there. The number of burials was, on an average, 1,500 per annum. Now, under any circumstances, the digging of 1,500 graves yearly in the midst of such a mass of human remains, in every stage of decomposition, would be most injurious to the PUBLIC HEALTH. I repeat, that such material constantly being upturned and offered in successive surfaces to the atmosphere, establishes a charge of great and gross dereliction of duty, and obligation; but as, in addition to daily and nightly practices the most scandalous and deprayed, a systematic and utterly unjustifiable process of rapid consumption of human bodies had been for many years in full and unchecked operation, it was quite time that it should be

exposed, for it was impossible perhaps to overrate the serious consequences that must have resulted to the HEALTH of the district.

One of the witnesses before the Parliamentary Committee of 1842 having given a qualified opinion as to the practices pursued then in that place, came in for his share of commendation, whilst the Committee and myself were thus spoken off in one of a series of letters, which were subsequently published in a collected form by the Committee of a Society for opposing the Bill brought into the House of Commons by Mr. Mackinnon, the Chairman of the Parliamentary Committee. With that Bill I have nothing whatever to do. I am a collector of facts, not a legislator. From facts collected by myself I drew certain conclusions; those conclusions may or may not be correct; however, there does not live the man who can invalidate my statements. The language of an anonymous reverend gentleman, however coarse or offensive, may curl the lip with contempt, but will not satisfy conviction. Here is an example of sensitive special pleading—the language of the man who in defending the conduct, sanctioned the practices of the proprietor of Enon Chapel, and of the managers of the Spa Fields receptacle.

Let us hear what this man says of the latter place.—

"We also (says he) charged the Parliamentary Committee at the outset with fatuous incompetency or most reprehensible unfairness in the examination. They not only allowed the witnesses to babble and talk at random upon all sorts of subjects, but actually prompted them to improprieties! When Mr. Robert Carr was examined in reference to a certain very serious point connected with Spa-Fields burying-ground, he was questioned thus:-

- "Q. 648. How do you account for that?—I cannot account for that.
- "649. What is your suspicion?-I cannot say anything on suspicion, unless I know the positive fact."
- "This manly and merited rebuke might have silenced the Committee; but they persevered as follows in their disgraceful course:—
- "650. You surmise something?-That which I think, I may think wrong; and, therefore, it would not be right to state it."
 - "Even this honest declaration did not abash them. They went on:-
- "651. Still, if you think anything wrong, and by giving your opinion (by lying?), the public might benefit by inquiring into the matter, it would be right that you should state it?—Unless I know a thing positively, I cannot speak to it; in whatever I may think, I may be wrong; but if there was anything I knew, I would speak plainly and openly."
 - "654. Is there any doubt that there is burning sometimes?—I never saw any. "661. You do not like to speak without being sure?—Certainly not."
- "Friends! (he continues) ponder this passage; you may hence learn both the complexion and the object of the Committee. Surely, the gentlemen forgot that they were a court of solemn inquiry. They also failed to remember that such inquiry, at every stage, necessarily affected both the property and the character of a large portion of her Majesty's subjects, 'What is your Suspicion has no right to a place in a good man's breast, especially in a court of justice.

"' 'What is your suspicion?' Only think of Lord Denman thus interrogating a witness relative to the conduct of a fellow-citizen! In the event of such an enormity, the thunders of the metropolitan press would have roared and rolled to the heavens! And shall a Committee of the House of Commons claim as their high prerogative, the right to do as whim, caprice, passion, or prejudice may dictate? In the name of law, justice, liberty, and honour, we denounce such conduct! Are 'suspicion' and 'surmise' henceforth to constitute the bases of enactments by which the lawful property of thousands is to be confiscated, and the highest privileges of millions of free-born Englishmen impaired or abrogated?

"Another point merits notice; the witnesses were as far as possible culled and selected to serve a purpose. With the clerical witnesses Mr. Mackinnon and Mr. Walker could not well tamper; they could only speculate regarding the gentlemen that were the most safe and the most likely to serve them; and to a great extent they erred in their speculation. It was somewhat otherwise with the Medical witnesses, friends of Walker, most of whom wanted not the will, but only the power, to sustain this most extravagant project. pon of the one class was opinion; the weapon of the other, fact. The Medical men said church-yards must be pernicious to health; the Clergyman contended that they were wholly innoxious. The former reasoned from the principles of chemistry; the latter, from personal experience. The Bishop of London alone pounded all the Doctors of Medicine as if in a mortar! discoursed of the mortal gases which emanate from the tombs, and maintained that they must be fatal to all residents in their vicinity; the calm Prelate only smiled at their simplicity, and replied, that both he and his household had lived many years in one of our most crowded church-yards in the enjoyment of perfect health. The rest of the witnesses were mostly men of lower grade, and more easily managed; but the bulk of them knew so little of the subject as to be of a slender service on either side. The grave-diggers, who were easily managed, and not easily detected, were the last and only hope of our Hannibal! Take away the foolish and monstrous fabrications of these poor degraded men, and what would be the effect of all the remaining evidence."

You will perceive that the writer of the above insolent passages, was, at the time he penned them, either grossly ignorant or audaciously unprincipled. He has wilfully placed himself in a most unenviable position. The Committee whom he so foully accuses, was distinguished for their patient attention to a series of most offensive facts, and are, I think, entitled to high praise from their countrymen, rather than deserving of unqualified censure. As to the "poor degraded men," the grave-diggers (of whom the writer speaks), who degraded them?—Such men as the reverend writer, whose reckless and disgusting cupidity has educated, aye, and organized, too, large bodies of men, not grave-diggers, but grave-desecrators, who, on the winking of authority, commit—daily commit, acts at which humanity shudders, and which religious professors should indignantly repudiate.

The witness Carr, in 1842, "suspected" the existence of what the month of January, 1845, demonstrated to be a reality. The burning,-not occasional,—but the regular, nightly, systematic burning of coffins, I knew had been carried on in the so-called BONE-HOUSE, in the Spa Fields burying-ground, for very many years. I knew that practices the most foul, inhuman, and atrocious, had been-must be, pursued to Make space. I knew from repeated personal observation, that the soil was peculiar, that the "MANAGEMENT" was PECULIAR, that the very shoring-boards employed in keeping up the holes that were daily being scratched out,—for it would be wrong to call such holes graves,—were kept up to answer the temporary purpose of masking the so-called burying, the mere farce of "committing," accompanied by, and concluded with, the most impious and disgraceful prostitution of the burial-service. I knew, I say, that the very boards necessary, absolutely necessary, to serve the purpose of preventing the earth from falling in, previous to the arrival of the expected temporary occupant, had been made from dead men's coffins; that the wood was sawn into shape; the nails knocked out, the boards "painted" with a compound of road-drift and water, and that a "wiper," employed as a brush, was invariably the product of robbery, the most disgusting and abominable.

I knew this and much more when Carr was under examination, and could, had I deemed it necessary, have adduced it in evidence before "the Committee," whom this pamphleteer so insolently charges "at the outset with fatuous incompetency or most reprehensible unfairness in the examination."

I hoped, however, and indeed expected, that my mission was ended,—that the exposition then made would have been sufficient to convince those whom it concerned of the necessity, if not the policy and decency, of withdrawing from a contest, for the maintenance of practices which must, if persisted in, inevitably bring on themselves disgrace and dishonour, degrade RELIGION, corrupt PUBLIC MORALS, and inflict irreparable injury on PUBLIC HEALTH.

I knew that I had done my duty, and trusted that the honest execution of a self-imposed, laborious, nauseous, and unprofitable task once completed, I might retire into the ranks as a simple citizen, and once more steadily follow pursuits more congenial to my habits and feelings.

A single connecting link only was required to complete a chain of evidence of such a character, as would have shaken (had the trial been proceeded with) the system of intra-mural burial and its frightful abominations to the very centre. This link was found. George Walters, the engine-keeper of the parish of Clerkenwell, an honest, active, and determined man, did his duty, although a bribe was offered him. Called upon to extinguish a fire in the Bone-House, and being refused admission, he seized a crowbar, and would have broken in the door had it not been opened.

He observed a great quantity of coffin wood piled round the room drying, a fire made entirely of coffins in the grate, and portions of human bones also. The engine-keeper particularly noticed the appearance of the chimney, and charged the grave-digger with having used water to entinguish the flame, which was denied; and he was told that what he 'thought was water, was pitch;' and this was the fact. Thick flakes of pitch were adhering to the inside of the chimney, thus giving palpable evidence of the material consumed, viz., coffin wood, about 2 lbs. of pitch being used in 'pitching' round the inner joints of an ordinary coffin.

The inhabitants of Exmouth Street, Fletcher Row, Vineyard Gardens, and Northampton Row, in the immediate neighbourhood, frequently complained of "a tremendous stench" of a peculiar kind, which they said proceeded from the burning of human remains and coffins.

On another occasion, when Walters proceeded with the engine on an alarm of fire in the bone-house, he was surrounded by a great crowd composed chiefly of women, who declared that "the stench was abominable," and adjured him "for God's sake to do all he could to get rid of this."

Wheel-barrow loads of coffin wood had frequently been removed across the ground from an opposite building to the bone-house, and hot ashes conveyed from it in return and thrown into the graves.

The grave-diggers in this ground have committed the most fearful and unheard-of atrocities on the bodies of the dead. The long hair of the women has been cut off and sold to the hair-dressers; "rails" (teeth) have been taken from every corpse affording them of sufficient quality to stimulate their cupidity; whilst the materials in which the bodies of the dead had been clothed by the hand of affection have been, in hundreds of instances, torn off by these midnight prowlers.

A statement, of which the above is an outline, was transmitted to the press of the United Kingdom. The Builder and the Era, among the London press, gave it insertion. The "managing man" of the proprietors of the grave-yard, Bird, acting no doubt under their advice, obtained insertion of the following in the two journals above named:—

"SPA FIELDS BURIAL-GROUND.

"To the Editor of the Builder.

"Sir,—Seeing in your paper of last week an article under the head of 'Burial-ground Nuisance,' containing an account of infamous practices taking place in this ground, the whole of which is grossly false, and as proceedings are about to be commenced against the author, I hope you will, in justice, find a corner in your next Builder for this communication.

"I am, Sir, your obedient servant, C. BIRD, MANAGER:

[&]quot;February 12, 1845."

Despising the threat of this wretched agent as we abhorred his practices, we repeated our assertions, and defied him and those who employed him. The vilest and most unprincipled abuse was now unsparingly and unscrupulously heaped upon those who had grappled with the men guilty of the hideous abominations of which this charriel had been the scene.

About this period, the following posting-bill was extensively placarded:

" SPA FIELDS BURYING-GROUND .- FIVE POUNDS REWARD.

"Whereas hand-bills, without the Printer's name and address, have been circulated, containing false and scandalous statements with reference to this burial-ground; the proprietors therefore feel themselves called upon to give the most positive denial to the revolting charges set forth in the said hand-bills, and to state that THE MELANCHOLY DUTIES CONNECTED WITH THE SEPULTURE OF THE DEAD in the Spa Fields burying-ground are, and invariably have been since the ground has been in their possession, conducted with the strictest regard to decency and the health of the surrounding inhabitants. As they have every reason to believe that these reports have been maliciously circulated, they hereby offer a reward of £5 for such information as shall lead to the discovery and conviction of the Printer or Printers of the said hand-bills, such reward to be paid on conviction. Application to be made to the Superintendent of the ground, Mr. C. Bird, 7, Fletcher Row, Spa Flelds."

It had been deemed necessary to repeat publicly the allegations made in my first communication by a large circulation of hand-bills and posters, which were a re-issue of my first statement, word for word, with the addition of the threat of legal proceedings on the part of the agent of the proprietors.

The "management," it appears, could not resist or decline, after writing so eloquently, yet withal so pithily, on "THE MELANCHOLY DUTIES CONNECTED WITH THE SEPULTURE OF THE DEAD" in their first essay, another attempt, in another direction, of a perfectly distinct and separate character.

The "old ground" was to reciprocate with the considerable piece of fresh ground, in which but few bodies had been deposited.

The MIDDLE, the WORST, and the BEST grounds were, although long artificially divided, Now to be made co-partners in capability. This projected scheme was thus announced:—

"SPA FIELDS BURYING-GROUND.

"The charges which have been made against the mode of conducting this ground having been repeated, the proprietors deem it advisable to court the most ample inquiry as to the truth or falsehood of those charges. They therefore beg to say, that the ground will be open to the inspection of the public at any reasonable hour; and that any person, having RECENTLY* buried any relative or friend,

^{*} The following advertisement may assist you in forming your opinions on the subject,—whether the announcement of the finding twenty-seven bodies out of the army of dead deposited in Spa Fields Burial-Ground was worth the paper on which it was printed? It is worth something, however, in this little history as a connecting link in the chain:—

shall be at liberty to have the ground opened, free of expense, to satisfy himself that the coffin, &c. have not been removed.

"The proprietors further beg to state, that a considerable piece of fresh ground* has recently been added, in which but few bodies have been deposited, and which is open to the selection of any parties who may object to the old ground on account of the number of bodies already buried there,—a circumstance of itself amply sufficient to refute the charges made, and to prove the malicious intentions of the parties who make them."

The complaints of some of the neighbours living in the immediate vicinity of this place, brought these creatures, bearing the image of man, — these traders in, and tramplers upon, some of the holiest sympathies connecting time with eternity, before Mr. Combe, at the Police Court of Clerkenwell. An indictment was preferred against them at the Sessions House by order of Sir James Graham. The cause, at the instance of the defendants, was removed by certiorari to the Court of Queen's Bench, and there, before the judge, Lord Denman, whose "interrogations" the reverend and anonymous disputant so much desired, did these very men plead guilty to the sixth count of an indictment, which demonstrated the entire truth of all that had been urged during many years, and covered them with confusion, shame, and disgrace.

"SPA FIELDS BURIAL-GROUND.—WHEREAS certain persons styling themselves 'The Provisional Committee of the Society for the Abolition of Burial in Towns,' have, by hand-bills and various other methods, circulated statements (not made on oath) of a nature (more especially those made by a discharged grave-digger) tending to inflame the public mind and to harrow up the feelings of all persons who have at any time selected the above-named ground for the interment of their deceased relatives. The Lessees of the ground take this means of making known to the public that, in vindication of their own character and of the persons in their employ, and also to allay the distressed feelings of such surviving relatives, they published hand-bills, in which they offered, at their own expense, to open such graves as might be desired, for the satisfaction of the latter persons; and that in consequence, up to the present period, twenty-seven graves have been opened, and that in every instance the coffins have been found undisturbed, and the parties requiring to have such graves opened have left the ground fully satisfied that the reports circulated are without any foundation."—Weekly Dispatch, March 7, 1845.

Although I had demonstrated the actual condition of the MIDDLE, the WORST, and the BEST GROUNDS, and subsequently insisted publicly upon the utter unfitness of the latter for the purposes of burial in consequence of the soil—the water coming in at a few feet from the surface, it is at this time employed for the purposes of inhumation. Water which must have percolated through soil incorporated with human bodies, is almost daily pumped up in large quantities by a moveable machine, and passes into the drain.

A most vile recipe this for compounding a pestilence,—a most undeniable medium for the diffusion of septic gases through the surrounding atmosphere, the subsoil of the district, or the remoter gully-holes.

And so disease is manufactured by wholesale to be treated by retail; and Englishmen who would unflinchingly defy the visible means of destruction employed on the field of battle, have, in the 19th century, yet to learn the great truth, that invisible and non-tangible causes of disease are, especially in our larger towns, in operation, and that they are more destructive, more deadly, more terrible, in their consequences, than the results of the bloodiest battle-field, from the bullet or the bayonet.

* This "CONSIDERABLE PIECE OF FRESH GROUND" immediately behind Spa Fields Chapel, measures 72 by 72 feet, and would inter (decently) ONE HUNDRED AND SIXTY-TWO adult bodies.

I shall not fatigue and disgust you with a detail of the practices disclosed during the various investigations just alluded to; it is a sad and melancholy history,* an epitome will suffice. Here it is.—

The practice of burning the coffins and portions of their contents has been carried on in Spa Fields burying-ground for upwards of a quarter of a century; a fire has been continually burning day and night. It has not been possible for a very long period of time to obtain a grave without mutilation and disturbance of previous deposits.

Stephen Bishop, the WATCHMAN (?) of the ground, has performed the double office of calling the hour of the night and burning coffins, &c. in the BONE-HOUSE. This person has executed the above-named, compound functions during seventeen or eighteen years. Some years since he was accustomed to eat his food in the bone-house, during the performance of his nightly tasks. Of late he became more fastidious, and wore a "handleather," to avoid contamination from the contact of the coffin-wood. Some time ago he told one of his associates that "'pon his soul he couldn't eat his grub in the bone-house now." The relief-guard (the grave-diggers) entered upon their daily work in the grave-yard as Bishop had concluded his nightwork in the bone-house. The man has frequently "let his fire down," and has been chidden by his employer for so doing. He has replied, that "the wood was wet." His master has rejoined, "You ought to save all the deal wood you can for the purpose of keeping up the fire."

The coffins of "still-born" children have been broken up and used for the purpose of lighting the fire in the bone-house; deal, of which they are composed, being more combustible than the elm coffin of the adult.

A late "manager" of the ground has entered the bone-house at various hours in the morning, and has observed, "Ah, Steevy," Stephen Bishop, the so-called watchman of the ground, "has been asleep. He's let his fire out. Why don't you take care of the deal for lighting the fire?"

It has frequently occurred that the poor creatures who have brought children to be buried ("still-born") have left, as a pledge for the eighteenpence fee they lacked, a shawl, an apron, or even duplicates, whilst the following Machiavelian trick has been often practised:—The corpse being taken into the parlour of the "manager," he has removed it from the coffin, and has endeavoured, by the exercise of a little tact, to elicit from the attendant or nurse, as the case might be, whether the child had breathed; if so, he refused to bury the child unless the fee of four shillings was paid, threaten-

^{*} For a full account of the "management" pursued in London burial-places, see "The Last Fire at the Bone-House in the Spa Fields Golgotha; or, the Minute Anatomy of Grave-digging in London;" by G. A. Walker. Longmans, Paternoster Row; Highley, 32, Fleet Street; and all booksellers.

ing the party, if they demurred, that he "would compel them to bury it in a regular way, by an undertaker."

It has been a common practice to remove the gravestones from the "common" into the "best" ground. A double object was thus accomplished—the ground had a more respectable appearance, in consequence of the array of tombstones; freer space was left for the digging-up, levelling, and raking over the "worst" ground, whilst an additional charge was demanded from the relatives of every new-comer.

Such were the disclosures made, and, as you may imagine, they produced a most extraordinary excitement. I visited the ground frequently for the purposes of observation and inquiry in the early part of the year 1845, and witnessed much of what I have stated to you. The upturned mounds of soil, the exposed coffins, the filthy aspect of the whole place, the exclamations of bystanders, the cunningly guarded threats of "manager" Bird, and his scarcely human crew of assistants, filled with astonishment and amazement the crowds of people who thronged the place.

Groups of relatives and friends might be heard requesting and demanding of Bird that the graves of their deceased friends might be opened for their satisfaction. In a few cases the request was complied with; in others, where the pertinaceous memory of the applicant insisted on the exact spot in which was deposited a once loved object, it was declined on various pretexts or On the 10th of March, 1845, Bird was respectfully brutally refused. solicited by a widow, Harret Jessie Nelson, to open a spot of ground exactly pointed out by her as the resting-place of her deceased husband. The poor creature waited about an hour and a half before one of the grave-diggers made his appearance. He had scarcely begun opening the ground when Bird, whom I myself noticed watching every movement, stepped up and refused to allow him to go on with the work, alleging that "the ground thereabout had not been opened for 10 years;" and, as a climax to his brutality, told the woman "she had got teeth enough to dig a grave herself." The disconsolate widow pressed her sad history on the notice of three young men who chanced to be present, and they volunteered to open the grave. During threequarters of an hour they continued their labour, but were compelled to desist in consequence of the intolerable and overpowering stench, arising from the earth turned up, although no coffins were visible. The coffin sought for could not be found. The grave-diggers tell the people with a jeer, that "if the bodies they want have been buried within a year, or perhaps two years, they could find them; but how could people expect that they could lay longer than that?"

On Sunday, the 9th March, 1845, many hundreds of persons were present in the grave-yard; here and there were groups of individuals listening to the indignant remonstrances of the friends or relatives of deceased persons, whose bodies had been deposited there, whilst the disgusting language and worse demeanour of the degraded creatures who have executed the work of grave-digging, or are now employed (many of them mere boys) in filling in the graves, struck the hearers with disgust, terror, and amazement. The very aspect of the place was terrible. Desolation seemed triumphant. Bodies recently inhumed, and others deposited at periods varying from one to two years, were indiscriminately exposed. In a pit situated at the north-eastern side of the grave-yard, were exposed to public view fourteen coffins; there lay they, in every conceivable position, about Two FEET from the surface, cheek by jowl, packed as closely as possible, forming a human pavement.

A place that amongst the infamous of this class was perhaps the most infamous—a place from the contemplation of which, some months since, a strong man would have turned with the most intense loathing, disgust, and alarm, had been arraigned before the bar of public opinion. The system of inhumation and crematon, followed in all its hideous and deadly detail for so many years, suddenly ceased,—the scandalous fraud was unmasked and stood unveiled in all its terrible deformity. The grave-digging, the farce of "committing," the nightly smashing up of coffins, the preparation for their fiery ordeal in the Bone-House, were promptly arrested, and the "management" pursued and tacitly submitted to during half a century, was suddenly changed into order and decency.

You will now judge whether practices so deadly, so detestable, so disgusting should be permitted to continue for a single hour amongst us, and whether, as they have been crushed in *one* locality, they should not cease in all? Is it not time that the public voice should be raised in aid of private exertion? Is it not the bounden duty of every man to come forward, each according to the means and the ability that God has given him, and labour unceasingly until the good work be accomplished?

There are many places, I assure you, in this town where "management" of a similar character to that I have unveiled to you is still pursued. Let no man say, this matter does not concern me; for, if indiscriminate mutilation and disturbance of previous deposits, and consequent desecration of the last resting-places of those who have preceded us are still to be permitted; if the ashes of our deceased countrymen are entitled to, or obtain too frequently under the present order of things, no respect; if the ties of relationship and affection, and the best feelings of the heart, are to be outraged by a trading sexton or a brutal grave-digger; if a system has too long been, and continues to this hour, in operation, which most unequivocally tends to brutalise, to unchristianise, the officials who execute the disgusting work, and the crowds of people exposed constantly to such scenes; if our beautiful burial-service has been too frequently

disgraced by the acts perpetrated previous or subsequent to its performance, it is more than time that such an evil were crushed, and for ever! It degrades religion, brings its ministers into contempt, tends to lower the standard of morality, and is a foul blot upon our boasted civilization.

THE END OF LECTURE II.

APPENDIX.

SINCE the delivery of this Lecture, the following communication has been forwarded to me. The honesty of purpose of the reverend writer is so evident, and the circumstances he so graphically details so important, that I have deemed it desirable to bring it under the notice of my readers:—

BURIALS IN CHURCHES.

Roxby Vicarage, Jan. 29, 1847.

DEAR SIR,—I am the curate of a country parish beautifully situated on the side of a hill in the north of Lincolnshire, containing 339 inhabitants. The church in which the Sunday-school is held is small. For a great number of years, probably two or three centuries, interments have constantly taken place in the church, to such an extent, that the chancel and body of the church are entirely full of human remains. It appears almost impossible to open any part without interfering with some one's bones lying mouldering beneath. Until within very few years, scarcely any have been interred in lead; only one, I believe, of those interred by me was thus enclosed. It is now well known that lead does not possess the power of preventing the escape of destructive gases from the decomposing dead.

The soil of the church-yard is raised two feet above the level of the church-floor by accumulated interments.

I entered upon the curacy in October, 1837. In December of the same year, a vault was made in the chancel; in constructing it, eighteen skulls were found, together with a proportionate number of bones; these were buried underneath the newly made vault, occupying a space of 6 feet in length, 2 feet in width, and $2\frac{1}{2}$ feet in depth. The removal of these human remains, causing the church to have an unhealthy and unearthly smell (for the disturbance of common soil will not produce it), forced upon me the conviction of the great danger of burying inside the church. I determined for the future, as far as my power would extend, to allow no more interments to take place therein. a gentleman, not resident in the parish, in November, 1845, obtained the incumbent's permission to bury his wife inside the church. Knowing how improper and dangerous it would be to the worshippers and myself who attend there on the Sabbath, I urged the necessity of burying outside, and offered, if he would do so, to give up any fee I might be entitled to. Having, however, the permission of the incumbent, he was determined to build a vault. In making this vault, situated part in the chancel and part in the church, fifteen skulls and a proportionate number of bones were exhumed, and afterwards placed underneath the vault. I insisted that the material, consisting of decomposed animal matter, should be buried in the church-yard, and that fresh earth should be brought in. The tombstone, with an inscription upon it containing the names of the former occupants, was cut in two, and part taken away. On January 13, 1847, the same gentleman having again obtained permission of the incumbent to bury his sister inside the edifice, sent a ground plan of the church to the bricklayers, and directed where, regardless of any prior interments, he would have another vault built. In constructing this vault, four skulls, together with a proportionate number of bones, were exhumed; to some of the bones the flesh was still adhering. The two bricklayers employed, who are natives of the village and cousins, declare they have exhumed the bones of their own grandmother to make room for the present occupant. one end of this vault were found piled a number of bones to within 6 inches of the surface; the stench from them was horrid; these remain undisturbed. One person,

an old man, visited the church during the building of this vault, but so over-powering was the destructive gas emanating from the bones and disturbed soil, that he was compelled to leave, vomiting violently. I staid a few minutes, but feeling the approach of sickness, I was glad to hurry out of the church. The workmen told me the material thrown out in order to make room for the vault was one mass of corruption, heating like manure, and smelling most offensively. The whole of this was buried in the church-yard, and replaced with fresh soil.

After the interment in November, 1845, I noticed the absence of several persons from the church, who had been annoyed by the offensive smell, and who feared their health might be injured.

During the building of the vault, many parishioners expressed their determination of not visiting the church for some time; and however much I may regret it, I cannot blame them, since no one having any regard for himself would willingly sit an hour in such a church.

Surely such a state of things ought no longer to exist. The voices of humanity, decency, and religion, raise their united cry against so dangerous and so unchristian a practice. What! must the bones of former occupants be thrust unceremoniously out of their sepulchres by their own descendants to make room for strangers, that again the same decomposition may take place, the same defilement go on, and disease and death walk hand in hand amidst unconscious victims, the humble worshippers in God's earthly temple? Does our holy religion require her votaries to carry the seeds of their own dissolution from her sacred altar? No! it is not religion, but the cravings of ignorance, and a vain and ill-placed ambition.

The dead of past generations have changed our churches into charnel-houses, in the belief that they would rest more securely, ashes returning to ashes and dust to dust, and that their descendants in after ages might stand upon their tombs and say, here rests my father, here lies buried my mother. What mockery of all that is solemn! We behold in the present instance the house appointed for all living violated, and the trowel and pickaxe of the mason deal as rudely with the church-sepulchred dead in a country village as the spade of the unscrupulous sexton with the overcrowded occupants of the London burial-places.

My small church is not a solitary instance; many churches in the neighbour-hood are in as shocking, if not worse, condition; and some of the church-yards are so crowded with grave-stones, reclining in every possible degree, as at once to convince an impartial judge of the utter impossibility of interring any more without removing the present occupants.

For such a state of things no partial remedy will be of any avail; it must be a compulsory and sweeping measure, not left to the discretion of a parish, but executed at the command of a government inspector.

I am sorry to find the apathy of my reverend brethren, from the bishop to the curate, so universally prevalent. It must arise either from ignorance or interest. Amongst the many thousands in our Church,—men of observation, leisure, and education, we look in vain for a single champion in so righteous a cause. I fear, on the contrary, they are upholders of the practice; the sight of gold acts as an "open sesame" to the marble floors of our cathedrals and churches; and the practice of burying clergymen under the altar where they have served, tends to perpetuate the dangerous custom.

Honour, all honour, to the men who have stood forth boldly and fearlessly in this righteous cause. But you stand foremost in the ranks. To you alone belongs the merit of having devoted many years, much labour and money, in endeavouring to convince us of the dangerous, the indecent, the deadly, and unholy practice of interring the dead in the midst of the living. You have grappled with this monstrous abomination; I hope my countrymen will hasten to your assistance, and complete its overthrow.

I remain, dear Sir, yours faithfully,

ADAM NELSON.

In Lecture No. I., I made certain statements in connection with the graveyard and vaults of St. Ann's, Soho. The following Report of the Committee of ratepayers of that parish, taken from the *Daily News* of Saturday, January 23, 1847, will be found to fully justify my allegations:—

Desecration of the Church-yard of St. Ann's, Soho, in consequence of the continued acts of desecration of the graves, and revolting scenes of disturbing the remains of the dead in the church-yard of that parish, arising from the crowded state of the ground. A public meeting was held, and a Committee appointed to report on the subject; that report has just been made and ordered to be printed. It states, that the complaints of the inhabitants of houses adjacent to the ground, with regard to injury to health, and the respect due to the dead, is borne out by ample evidence; that in future no coffin be allowed to approach nearer the surface than 5 feet; that no interment shall be made except at the lowest depth in each grave, and the depth of every interment be correctly entered in a book kept for the purpose. A Standing Committee has been appointed to inspect and carry into effect these resolutions.

THIRD OF A SERIES

OF

LECTURES

DELIVERED AT THE MECHANICS' INSTITUTION, SOUTHAMPTON BUILDINGS, CHANCERY LANE, FEB. 24, 1847,

ON THE ACTUAL CONDITION OF THE

METROPOLITAN GRAVE-YARDS.

By GEO. ALFD. WALKER, Esq., Surgeon.

"No burying-places should be tolerated within cities or towns, much less in or about churches and chapels. This custom is excessively injurious to the inhabitants, and especially to those who frequent public worship in such chapels and churches. God, decency, and health forbid this shocking abomination." * * * From long observation I can attest that churches and chapels situated in grave-yards, and those especially within whose walls the dead are interred, are perfectly unwholesome; and many, by attending such places, are shortening their passage to the house appointed for the living. What increases the iniquity of this abominable and deadly work is, that the burying-grounds attached to many churches and chapels are made a source of private gain. The whole of this preposterous conduct is as indecorous and unhealthy as it is profane. Every man should know that the gas which is disengaged from putrid flesh, and particularly from a human body, is not only unfriendly to, but destructive of, animal life. Superstition first introduced a practice which self-interest and covetousness continue to maintain."—Dr. Adam Clarke's Commentary on Luke vii. v. 12-15.

LONDON:

LONGMAN, BROWN, GREEN, AND LONGMANS, PATERNOSTER ROW; HIGHLEY, 32, FLEET STREET; AND ALL BOOKSELLERS.

THIRD OF A SERIES

OF

LECTURES

ON THE

METROPOLITAN GRAVE-YARDS.

LADIES AND GENTLEMEN,

When last I had the honour of addressing you from this place, I endeavoured to lay before you the various MORAL injuries which inevitably result from the practice of intra-mural sepulture.

In my present Lecture, I shall attempt to demonstrate some of the PHY-SICAL evils inseparable from the custom of depositing the DEAD in the midst of the LIVING.

These evils, though numerous and varied, are self-inflicted, and therefore removeable. The yet lingering superstition that yearns to satisfy a non-satisfiable sentiment, that hopes to cheat corruption of his prey and the worm of his banquet,—that desires to find IN, or NEAR, or UNDER the CHURCH or CHAPEL a last resting-place for its corporeal fabric, will have felt itself shocked to find from my previous statements that localities which used to be deemed sacred are subjected to periodical visitations from semi-civilized barbarians, who, while they insult our feelings, poison the source whence our very existence is derived.

I have shown you the principles and practices of grave-yard "management;" in other words, that by a process of transmutation or "clearing-out," as it is significantly called,—leaden coffins, with their emblematical garniture, find their way into the marine-store shops, and coffin wood is employed in culinary operations,—in diffusing warmth in the abodes of the wretched and the depraved, and in corrupting the atmosphere of the localities where it is consumed.

Now, although I freely admit that we are dealing with an inherited evil a mischief bequeathed to us by our ancestors, I have yet to learn that any the least, excuse can be offered for its continuance.

Death, like life, propagates itself. He exacts from the multitudinous population of this vast city his thousand victims weekly. In his turn he knocks at every man's door,—"the bright, the brave, the beautiful," the infant and the old man,—the young,—the full of promise,—the bouyant with expectation,—the outcast and the miserable, must one day change time for eternity.

A wise Providence has ordained that any habitual disregard of morality is soon followed by bodily suffering. Crime is invariably the parent of disease; and "such is the harmony always existing between religion and sound policy, that what is acknowledged as decorous and useful by the one, is also commanded and prescribed by the other."

Our moral instincts, our religious sentiments, tell us that the sanctuary of the dead should remain inviolate; daily experience teaches, that the process which resolves the animal body into its elements is attended by the disengagement of matters highly injurious to the HEALTH of the LIVING.

Morality, religion, and the imperative demands of the PUBLIC HEALTH, all point out the necessity of removing the so-called resting-places of the DEAD from the habitations of MAN.

We have already seen the dreadful immorality engendered by the disregard of a duty which every Christian and civilized people, save ourselves, has accepted as a principle of conduct. Let us now proceed, without further preface, to demonstrate that the habitual disregard of this sacred duty is a paramount source of disease and death.

To those in whom the dictates of common sense have not been altogether perverted by interest or prejudice, it may seem superfluous to affirm, that the exhalations from dead bodies in a state of putrefaction are injurious to health; yet there are men of some scientific character and of high standing in society, who deny this plain, I might almost say, this self-evident proposition, in the most peremptory manner. How do these gentlemen proceed? Unable to combat the truth, they have recourse to sophistry,—to the puerile expedient of drawing positive conclusions from negative facts.

Permit me, before entering on the immediate matter of discussion, to dispose very briefly of these adversaries. In order to prove, generally, the innocuousness of decaying animal matter, they assert that professors and students of anatomy, pursuing their vocation in the midst of crowded populations, experience no injury themselves, and occasion no inconvenience to their neighbours. They quote the examples of persons who have resided near or in church-yards without suffering any evil consequences, relying especially on that of a dignitary of the church, who dwelt five years in the grave-yard of St. Botolph, yet is now the Lord Bishop of London. They cite grave-diggers, sextons, and undertakers, as examples of individuals who live long

in the enjoyment of excellent health; and, finally, they have recourse to the assertion, that "because we cannot trace the origin of any specific disease to putrid animal exhalations, they are therefore not productive of any disease at all."

You will not, I think, require from me any serious argumentation to overthrow fallacies such as those which I have just mentioned to you. A few words will suffice. Even admitting the flourishing health of medical students, sextons, and grave-diggers; granting that robust and well-fed individuals may breathe with impunity the nauseous atmosphere of a graveyard,—supposing that neither typhus nor yellow fever, the plague, or any other specific pestilence can be traced to the exhalations from the dead body, to what does such reasoning amount? It is a fact well known to all medical men, that the causes of disease do not act on all alike; that of twenty persons exposed to their influence, (no matter how energetic or powerful that influence may be), five,—ten,—fifteen will escape unhurt. The late Rev. Evan James, who gave evidence before the Parliamentary Committee, of which I have so often spoken, informed us that he buried a man in the 103rd year of his age who had been upwards of seventy years the grave-digger in Stepney.* But the reverend gentleman should have asked himself the question, how many younger grave-diggers had been cut down during the probation of the elder one? However, I may inform you, that in the year 1665, the period of the "Great Plague," in the parish of Stepney alone, 116 sextons, grave-diggers, and carters employed in removing the dead bodies, were cut off in one year! †

What would you say to the impertinent folly of the soldier who denied the danger of battle because he escaped from the strife unwounded? What of the mariner who ridiculed the power of the tempest because he never suffered shipwreck?

The fact that certain persons may be exposed to the causes of disease as well as to danger without suffering therefrom, does not prove that other individuals are equally exempt. Nothing can be more absurd than the assertion that because *some* escape, all must escape likewise.

We know that of a given number of individuals who are exposed to the most contagious diseases, only a certain proportion are attacked. Some will resist the innoculation of small-pox matter; many escape after being bitten by a mad dog; thousands of persons daily exposed to the morbid poisons which give rise to the plague, typhus fever, and other similar diseases, are unaffected by them. Many circumstances contribute to this immunity, which I repeat is well known to all but those who have an interest in denying its existence.

^{*} Report on Effects of Interment of Bodics, p. 162.

The wonder is, not that some escape, but that entire populations are not exterminated.

The African flourishes in the midst of a malarious atmosphere, a single inspiration of which often engenders fatal disease in the European; certain constitutions will resist the inroad of a malady under which the less favoured perish; and medical men are fully aware that certain infections chiefly attack the poor and the inhabitants of dirty, close, and ill-ventilated localities. This has been ascertained beyond all question, for the cholera of India, the plague of Egypt, the yellow fever of America, and the scarcely less murderous and destructive typhus fever and consumption of our own country, are so many evidences, in my humble opinion, of the relationship existing between Cause and effect. I will show you that the clearly traceable consequences, in single instances of exposure to putrid animal exhalations are so analagous in their results, that it is impossible for any sane man to deny the identity existing between the symptoms of those diseases and their producing or exciting cause.

The reasoning, then, of the persons to whom I have just alluded is absurd, because they attempt to draw positive conclusions from negative premises; it is still less tenable, because the negative facts on which they rely are false. Believe me, and I speak from what I have felt, and from what I have seen, the life of the medical student is not exempt from danger, nor is his condition of health so flourishing as it has been represented. Believe me, that working grave-diggers, and even non-working sextons, are not to be cited as examples of a robust and healthy-class. Believe me, if persons have inhabited the immediate neighbourhood of church-yards with apparent impunity, it is because they have been well clothed and well fed that they have been enabled to better resist the invariably depressing influence of a poison under which their poorer brethren slowly and miserably perish.

Having thus disposed of some of the principal arguments of our opponents, let as turn to the immediate subject of this Lecture. I propose to demonstrate to you by general reasoning and special facts, that during the decomposition of the human body after death, certain principles are thrown off which exercise a highly injurious influence on the HEALTH of the LIVING. The principles alluded to are denominated in medical language MORBID POISONS. It may be useful to explain to you how these poisons arise from decomposing animal matter, and how they act on the living body.

This is necessary, because some persons still exist who, either through ignorance or from a desire to hide the truth, will tell you that the malarious exhalations from vaults and church-yards may indeed offend the nostril, but cannot injure health.

During the putrefaction of animal and vegetable bodies, certain substances are generated which act as deadly poisons on the human frame, in virtue

of some peculiar but unknown condition. From their tendency to excite a certain train of symptoms, and from their power to occasion even sudden death, these substances are called Morbid Poisons. While going through the various processes by which the human body is gradually resolved into its elements, a number of gaseous substances, well known to chemists, and certain animal principles, are generated; but the nature of the latter has hitherto escaped discovery.

Sir Benj. Brodie,—and no one who knows his character will accuse him of a tendency to exaggerate,—informed the Parliamentary Committee that the gas evolved from putrid bodies is chiefly sulphuretted hydrogen, a gas so noxious and so deadly, that the admixture of one part of it with 500 parts of atmospheric air is almost immediately fatal. *

In addition to this deadly ingredient, other dangerous gases are liberated, and the PECULIAR ANIMAL PRINCIPLES already alluded to. Although we have been unable to reduce the latter to a state of palpable existence, I have not the least doubt of their presence amongst the products of putrefaction. They give rise to the nauseous deadly smell which accompanies the last metamorphosis of the human frame, and which prepares us for a separation from the bodies of the dead for ever; they render the gaseous products much heavier than they otherwise would be if composed of unmixed gas; and, finally, they give rise to most of the injuries to health inflicted by the respiration of GRAVE-YARD atmospheres, because the gases themselves, when breathed in a pure state, are not found to produce similar effects.

The following observations, adduced in corroboration of the evidence furnished during the Parliamentary investigation in 1842, were submitted by me to W. A. Mackinnon, Esq., the Chairman of the Committee appointed to inquire into the "Effect of Interment of Bodies in Towns."

As they explain briefly (and I believe for the first time) the composition and the action of the compounds produced by the decomposition of the dead body, I will, with your permission, bring them under your notice:—

The gases given off during putrefaction distend the leaden coffins to such a degree that, to prevent their bursting, it is necessary frequently to bore a hole in them, to allow the gases to escape. Sometimes the gas is burnt, and the combustion continues from 15 to 20 minutes, with a faint blue flame.

That carbonic acid is generated is rendered extremely probable by the fact that it instantly extinguishes light; that it falls to the bottom of the grave when dug; and that the grave-diggers are in the habit (as stated to me by the sexton at Aldgate) of letting down empty buckets into the grave, and thus drawing up the gas, which they state they pour out like water on the surface.

All the sudden deaths which have taken place appear to have been by asphyxia (suffocation). When the gas does not immediately destroy life, it produces first

^{*} Report on Effect of Interment of Bodies, p. 180.

an alarming sense of depression and loss of muscular power; to this succeeds a state of slight reaction; the first shock so paralyses the bodily powers, and deteriorates the circulating fluid, that neither are equal, the one to bear or the other to keep up the increased stimulation induced by the reaction of the system. The second stage corresponds to the febrile stage of typhus fever, which it closely resembles, and is attended by vomiting and purging, with sometimes flatulent eructations of a highly fetid character. Then comes the stage of exhaustion, which depends on the quantity and recency of the gas respired, and the powers of resistance of the person attacked. In a recent case the symptoms amounted merely to debility, loss of appetite, and supposed congestion, with torpid action of the liver, conjoined with sickness, oppression of breathing, and a coppery disagreeable taste in the mouth, which continued some days.

In a case which I shall subsequently bring before you, two men were instantly attacked from the effluvium of a grave, and died within a few days. The symptoms were those of plague, which Dr. Armstrong says is the typhus of this country; and indeed the analogy between the diseases of this class is so great that it is not unreasonable to suppose a similar cause for all, allowance being made for climate, habits of living, &c., which will often occasion some remarkable dissimilarity in diseases apparently the same.

Indisputable facts prove, that gaseous exhalations from dead bodies have in many instances seriously injured health, and in others immediately destroyed life. In warmer climates than our own many instances have occurred; in London within the last four years five lives have been openly sacrificed.

The more deeply a body is placed in the earth* the more slowly will putrefaction proceed; yet layers of earth of several feet in depth can no more intercept the transmission of gases into the atmosphere than they can by their density prevent the infiltration of water; the one ascends, the other descends, through a permeable medium. Gases, indeed, are evolved with such force, and in such quantity from bodies placed in leaden coffins in vaults (under a medium temperature), that the lids of such coffins, notwithstanding the atmospheric pressure, become convex, and sometimes are rent asunder, and the gases thus and otherwise evolved become diffused and mixed with the atmosphere, and enter the lungs in every inspiration.

A grave-yard presents an excellent absorbing surface, its dark colour and its loose texture affording the conditions most favourable for this process; hence during the day the superficial stratum of earth freely absorbing the heat emitted from the sun, will have its temperature thereby raised considerably above that of the superincumbent atmosphere. Now, as heat is freely communicated from one body to another in contact with it (by conduction), until an equilibrium of temperature be established, the layer or stratum of atmospheric air lying immediately

^{*}My readers will seareely believe, that in very many of the Metropolitan grave-yards the earth barely covers the dead interred therein. If burying-grounds capable of containing 136 bodies PER ACRE PER ANNUM are made to hold, or to give, what is falsely called burial, to one, two, and three thousand bodies per acre per annum, the most brutal mutilations and dangerous displacements must be constant and inevitable.

The gaseous products must pass off into the atmosphere, even when the dead are buried at a depth of many feet from the surface. The putrefactive process, when bodies are interred at a depth of six or eight feet, is necessarily less rapid, and therefore less injurious to the living, than when dead bodies lie almost on the surface of the earth. Hence an imperative necessity is shown for an instant arrestation of a system of "MANAGEMENT" as scandalous as it is destructive and deadly.

upon or above the surface of the earth, receives from the latter (the earth) portions of the solar heat which it had previously absorbed, and being thus rendered specifically lighter, rises (as a balloon containing air rarefied by heat) to the higher regions of the atmosphere, its place being immediately occupied by another portion of cold air, which, in like manner, becomes heated and ascends, thus establishing a continual upward current.

The effects of such currents, most powerfully assisted by the atmospheric pressure of 2·160 lbs. upon every square foot of surface, aided by HEAT and MOISTURE, (the absolute essentials in the putrefactive process), in amalgamating the more solid compounds with the soil,* and dissipating the gaseous products through the atmosphere, cannot be misunderstood, and ought to be fully appreciated; for it is difficult, if not impossible, to calculate the distance to which such emanations may extend: and on the dilution, quality, quantity, and, I believe, the age of the gas, and the power of resistance of the individuals exposed to its influence, will depend the risk to the persons who inhale it.

During night the earth no longer receives heat from the sun, and since the conditions most favourable for absorption of heat are likewise those which confer the greatest radiating power, the heat previously absorbed is soon lost by radiation; the upward current ceases; gases eliminated from the grave-yards, vaults, &c. distributed in patches in the midst of human dwellings all over London, obey the impulse of gravity, that is, if lighter than the atmosphere, they ascend; if heavier, they remain diffused through its lower strata, and inflict especial injury upon the inhabitants living in the immediate neighbourhood of grave-yards, more especially where sunk areas abut upon the burial-places.

In certain states of the atmosphere, and early in the morning, the condensed gases given off from grave-yards have been seen, and the peculiar putrefactive odour of the dead was easily recognizable. I have frequently reflected with mingled feelings of disgust and pity upon the miserable, cautious, trimming policy of individuals, who, although ignorant and uninstructed in a matter of such vital import, yet refuse to be enlightened. We have a society for the prevention of cruelty to animals, societies for almost every other object than the protection of the health of the animal man. Yet it is not only cruel, but highly impolitic, to expose masses of human beings to influences that must injure their health, deteriorate their powers for industrious purposes, render them dependent upon their friends or the parish for pecuniary or other assistance, and thus, in consequence of primary neglect, the most unjustifiable experiments are made upon tissues or organs which may never recover their original tone or function.

The experience of the wisest men of all ages has gone far to prove that the mental and moral qualities of a people materially depend on their physical organization; that causes injuriously affecting the latter, must surely and inevitably blunt the susceptibility, and impair the energies of the former; and since the physical being can be modified and altered by varying the external influences acting on the population, the importance, nay, imperative necessity, of due SANATORY

^{*} About twelve-thirteenths of every dead body must dissipate, and the material of which it is compounded, pass off in a gaseous form into the atmosphere, as I have above explained – or percolate through the loose sub-soil in every direction. In many grave-yards the natural cohesiveness of the soil is destroyed by the intermixture of animal matter, which finds its way into the wells in the neighbourhood, and injures the health of the persons who use the water.—See "Interment and Disinterment," Letter VIII.

REGULATIONS for the conservation of the PUBLIC HEALTH must be a paramount and primary consideration in the projection of any scheme of social improvement.

The mode of action on the living frame of the morbid poisons thus generated has been well explained by Baron Liebig, to whom we are indebted for the satisfactory elucidation of a subject which has long occupied the attention of medical philosophers. According to the illustrious chemist just named, the effects of morbid poisons are analogous to those of fermentation. What then is fermentation, and how is this change produced?

The advance of science, Ladies and Gentlemen, consists in the simplification of knowledge; in extending the application of a simple law to phenomena which were previously supposed to be far removed from its control. Thus is the agency of electricity shown to be more universal—all-pervading; and thus (in the matter which concerns us) has a simple law been extended from common motion to chemical affinity, and from chemical affinity to human disease. The simple law to which I now allude is the following:—"A molecule (or particle of matter) set in motion is capable of imparting its own motion to another molecule with which it may come in contact"

Let us apply this law to fermentation, and reflect on the nature of ferment or yeast.

What is yeast? It is a body in a state of decomposition, the integral atoms of which are in motion. When yeast is placed in contact with a solution of sugar, it communicates to the particles of that sugar a motion similar to its own, and therefore one of decomposition. As the decomposition goes on, the yeast gradually disappears, until it is all consumed, after which decomposition ceases. But let the solution of sugar contain some gluten, what happens? Yeast, I should mention to you, is a product of the decomposition of gluten; when mixed, then, with a solution of sugar containing gluten, it first excites fermentation in the sugar, and then reproduces itself from the gluten contained in the solution. From this latter fact we derive the all-important law of the reproduction of animal poisons which we may express in the following terms:—" When a body in a state of decomposition is added to a mixed fluid in which are contained the constituent parts of that body, the latter reproduces itself by reassembling its constituent parts." We have seen how yeast will reproduce itself in a mixed fluid containing gluten, because gluten furnishes materials for fresh yeast. In the same way do the particles of small-pox, of plague, of syphilis, and other animal poisons reproduce themselves in the blood and excite disease; because in the blood they find the constituents of the substances from which they themselves were formed.

Of all parts of the living body the blood is most apt to be acted upon by substances in a state of decomposition and possessing the property just

alluded to; and this for two principal reasons.—First, because the blood is the most complex of all existing matters, and is in a state of perpetual change or transformation. Second, because the blood contains the elements of all parts of the organic body; and hence is liable to be acted on by any element which may be presented to it.

Let us now apply these general principles to facts. A piece of decayed wood placed in contact with a piece of sound wood will excite the process of decomposition in the sound wood. When muscle, cheese, portions of the brain or other animal matters, in a state of putrefaction are placed in contact with a solution of sugar, they cause its putrefaction, exactly as yeast does; in other words, they decompose it and convert it into the elements of carbonic acid and alcohol. When the same substances are placed in contact with human blood out of the body, they at once communicate to that fluid their own state of decomposition. When portions of putrid muscle, brain, or other matter are placed on a fresh wound, they excite vomiting, debility, low fever, abscesses somewhat similar to plague buboes, and, finally occasion death. Even the human stomach, which is capable of destroying the virus of small-pox, is unable to counteract some of these poisons, and hundreds of cases are on record where the elements of putrid sausages, having passed through the stomach into the blood, have excited general decomposition of the body, and thus produced lingering disease of the most remarkable and fatal nature.

It may perhaps be doubted that the injurious influence of morbid poisons depends on putrefaction, but you will, I think, be inclined to conclude with me that they do so, when I mention to you that precisely the same agents which retard fermentation or decay, render animal poisons inert. Thus, the temperature of boiling water and contact with alcohol annihilate the power of morbid poisons. The same effect is produced by acids, salts of mercury, aromatics, volatile and empyreumatic oils, and smoke. Now, all these bodies have the property of retarding or arresting putrefaction, and we have, therefore, sufficient grounds for concluding that morbid poisons act on the human body in a manner somewhat analogous to ferments, *i.e.*, by exciting a process of decomposition in the fluids and solids, each after its own kind.

Having thus explained in a general manner the mode of action of morbid poisons, I shall proceed to demonstrate to you that the emanations from dead bodies (being one species of morbid poison) are highly dangerous to life, and most injurious to health. With this object I shall now proceed to lay before you a series of proofs and illustrations of the most convincing kind.

I shall show you that putrid animal matter causes fatal disease when introduced into the human body by innoculation. I shall prove that similar effects are produced by breathing the atmosphere which surrounds bodies that have been kept too long previous to burial. I shall bring before you,

examples of sudden death—of putrid fever—of lingering disease—and of various forms of deranged health arising from the effluvia given off by vaults and graves when opened. I shall show you the manifold and miserable injuries inflicted on the living by the emanations from crowded grave-yards, even when the earth covers its dead. And, finally, I shall relate to you the opinions of great and learned men, of high authorities, of the wise and good of every age and in all countries, who condemn, on the ground of injury to the public health, the disgusting practice of intra-mural sepulture.

Animal poisons may be introduced into the human body in two ways—directly by inoculation, and indirectly by the lungs and skin. You all know how the morbid poison of small-pox gets into the blood by means of the respiration or by inoculation. So it is with the morbid poison of decaying bodies.

The fatal effects of the inoculation of putrid matter during dissection have been proved by hundreds of examples. Many of the brightest ornaments of the medical profession have been cut off in this manner. The effects are sometimes almost instantaneous, and evidently arise from poisoning the blood. Thus, Sir Astley Cooper relates the case of a student who slightly pricked his finger while opening a dead body; no *local* disease could be traced, there was no appearance of the puncture, yet the unfortunate young man perished within 48 hours, under symptoms closely resembling the dreadful excitement of hydrophobia.

A grave-digger, who had wounded his finger, being engaged in digging a grave in an overcharged church-yard in London, perished in a most miserable manner from abscesses over his body in consequence of the animal compound becoming applied to his cut finger.* The poison, thus, may pass directly into the blood and excite dangerous disease, or produce death in its most dreadful aspect. This fact is incontrovertible.

Let us now proceed to show that the morbific principles may be introduced into the blood through means of the lungs, and being thus mixed with the vital fluid, give rise to a great variety of dangerous and fatal consequences. Now, as you are little likely to take up the office or fulfil the duties of the wretched class who are called grave-diggers, the question of inhalation or imbibition by the lungs is of infinitely greater importance to you than the results of inoculation from an abraded surface. As I have previously informed you, neither leaden coffins in vaults, nor burial in the earth, can prevent the exhalations from dead bodies passing into the atmosphere we inhale; it is necessary that I should insist, once and for all, that the gaseous products, once having escaped from their producing agency, become permanently mixed with the air we breathe, and enter into and corrupt the blood.

^{*} Parliamentary Report, Effect of Interment of Bodies, p. 52.

Disease, in its many and varied forms, proceeds from causes within or without the body. A man takes air into his lungs, on the average, twenty times in a minute, or, in other words, he inspires the atmosphere twenty-eight thousand eight hundred times in twenty-four hours.

In the same period of time (twenty-four hours), the heart beating on an average seventy-five times per minute, propels into the lungs 150 ounces of blood; in the course of one hour, 562 pounds; and in twenty-four hours, 13,488 pounds.

"It would appear that the whole surface of the ramifying air-tubes in man amounts to one thousand four hundred square feet, on which extraordinary surface the blood and atmospheric air are in contact with each other, being separated merely by a moist permeable membrane.

* * *

"Although the atmospheric air and the blood are not brought into absolute contact, there is no impediment to the mutual action. The absorption of the air through the humid membrane that surrounds the sponge-like substance of the lungs is facilitated by the immense extent of surface presented, over the whole of which a thin stratum of blood is distributed, and simultaneously exposed to the atmospheric influence. The permeability of the soft tissues, especially of the membranes, by fluid and gaseous substances, is a well-known fact. It is in accordance with this law that atmospheric air finds its way into the blood. Dark red blood, inclosed in a moist bladder, soon assumes a bright red tint; a gas inclosed in a similar receptacle is found, after some time, to be partly displaced by atmospheric air."

It is thus made evident that it is a matter of paramount importance that the atmosphere—the first and last food of man and animals—should be breathed in a pure and uncontaminated condition. It is, therefore, unwise, unjust, and impolitic to expose the majority of our population in towns to the constant influence of gaseous compounds, whose exact composition has as yet eluded chemical research, but of whose immediate effects on the human frame I have produced evidence enough to set incredulity at defiance. EMANATIONS FROM THE DEAD, escaping in a pure and concentrated form, have caused the immediate loss of life, and the compound that can instantly extinguish life, must, when diluted by the surrounding atmosphere, give rise to slow poisoning in a greater or less degree as circumstances more or less favourable or unfavourable are in operation.*

Before I proceed to explain to you the evil effects inevitably resulting from the practice of intra-murul burial it will be necessary to prove to you by the citation of incontrovertible facts that such dangerous and fatal consequences have been produced by, and daily result from, emanations from the bodies of the dead.

I shall show you that serious injury is inflicted on the health of survivors

^{*} Burial-ground Incendiarism.

by the delay of interments; that the dead body, even before it is committed to the grave, before putrefactive decomposition has made any great progress—

—— "Before decay's effacing fingers,"
Have swept the lines where beauty lingers,"

may, and often does, send forth pestilential emanations injurious to those who are compelled to breathe them. Upon this important fact I laid particular stress in my petition to the House of Commons in the month of February, 1842. I was the first, I believe, who brought the subject before the Parliament during my examination before the Committees of 1840-42. The danger, as well as the morally injurious effects of the practice, have been most fully proved by the numerous facts furnished since then to the Government Commissioner, Mr. Chadwick, by medical practitioners attached to the poor-law unions in London and the provinces.

In a great majority of cases in this huge Metropolis, and in our crowded manufacturing towns, a single room is the dwelling-place of the poor man and his family. Sometimes, indeed, there is a congregation of several families in the same apartment. In this one room are the inhabitants often generated and born. Here they eat, drink, and sleep, and here they die: In the inner ward of St. George's, Hanover Square, in the immediate vicinity of the noble and the wealthy of that aristocratic parish, it has been ascertained that of 1,465 families of the labouring classes, no less than 623 possessed but a single bed for each family.* In many of the rooms from eight to twelve persons live, and when a death occurs amongst them, they are compelled to eat and sleep and perform all the necessary offices of the family in the same room with the corpse. From various circumstances which it is unnecessary for me to explain, the dead body is often kept in the dirty, crowded, and ill-ventilated apartment for many days; sometimes I have known a dead body kept even fourteen days in warm weather before arrangements could be made for its interment. During this protracted period, the inhabitants, weakened by watching, depressed in mind, or overwhelmed by affliction, are exposed to invisible poisons passing off from the dead body, in their most concentrated and sometimes most virulent form. The body, destroyed by malignant typhus or small-pox, for example, gives off its noxious effluvia, whose component particles or atoms, disengaged in a gaseous form. again corrupt the blood, prostrate the energies, or annihilate existence in those exposed to them. Decomposition, as you may well suppose, goes on rapidly under the circumstances which I have described; and it is, as I have proved, often necessary to tap the coffin in the room, crowded by friends and relatives of the deceased. That fatal disease must frequently result, that

^{*} Mr. Chadwick's Report.

lingering maladies and serious disorders must arise from the constant respiration of an undiluted poison, you can readily imagine. I will relate a case from my own experience:—A woman died of typhus fever. A lady, residing in the same house, went up stairs to read the inscription on the coffin; being short-sighted, she put her head close to the plate. Her two daughters did the same; they were all attacked by typhoid (that is, a milder form of typhus fever) soon afterwards.

Similar examples are not wanting; they occur to medical men every day, and have been fully set forth in Mr. Chadwick's supplement to the sanatory report of 1843. Allow me to quote a single case from the evidence of Mr. T. Abraham, surgeon, and one of the registrars of the City of London;* it will serve for all. Mr. Abraham was asked—

"In the course of your practice, have you had occasion to believe that evil effects are produced by the retention of the corpse in the house?—Yes; I can give an instance of a man, his wife, and six children, living in one room in Draper's Buildings. The mother and all the children successively fell ill of typhus fever: the mother died; the body remained in the room. I wished it to be removed the next day, and I also wished the children to be removed, being afraid that the fever would extend. The children were apparently well at the time of the death of the mother. The recommendation was not attended to; the body was kept five days in the only room which this family of eight had to live and sleep in. The eldest daughter was attacked about a week after the mother had been removed, and, after three days' illness, that daughter died. The corpse of this child was only kept three days, as we determined that it should positively be removed. In about nine days after the death of the girl, the youngest child was attacked, and it died in about nine days. Then the second one was taken ill; he lay twenty-three days, and died. Then another boy died. The two other children recovered."

It is not necessary that the dead body should be in such immediate contiguity to the persons injuriously affected by it. Even the casual passenger is occasionally attacked. Here are examples which came under my own observation:—

In the month of June, 1835, a woman died of typhus fever, in the upper part of the house, No. 17, White Horse Yard, Drury Lane; the body, which was buried on the fourth day, was brought down a narrow staircase. Lewis Swalthey, shoemaker, then living with his family on the second floor of this house, during the time the coffin was placed for a few minutes, in a transverse position, in the door-way of his room, in order that it might pass the more easily into the street, was sensible of a most disgusting odour, which escaped from the coffin. He complained almost immediately afterwards of a peculiar coppery taste at the back of the throat; in a few hours afterwards he had, at irregular intervals, slight sensations of chilliness, which before the next sunset had merged into repeated shiverings of considerable intensity; that evening he was confined to his bed, and

^{*} Mr. Chadwick's Report.

passed through a most severe form of typhus fever. He had been in excellent health up to the period of this exposure.

Mr. M—, a patient of mine, some years since was exposed to a similar influence; a stout muscular man died in his house in the month of June, after a short illness; on bringing the body down stairs, a disgustingly fetid sanies escaped from the coffin in such considerable quantity, that it flowed down the stairs; Mr. M. was instantly affected with giddiness, prostration of strength, and extreme lassitude; he had a peculiar metallic taste in the mouth, which continued some days; he believes that his health has been deranged from this cause.*

As illustrative of the effects of emanations from dead bodies previous to interment, I could mention many cases in which medical men and others have seriously suffered in health from post-mortem examinations. Mr. Kiernan, an eminent anatomist of this Metropolis, states that he has seen examples of severe constitutional disorder produced in persons who witnessed the post-mortem examination of individuals cut off by peritoneal inflammation, although they never touched the bodies.

Percy, the celebrated French writer gives a still stronger case.—

"Dr. Chambon was required by the Dean of the Faculté de Medicine of Paris to demonstrate the liver and its appendages before the faculty on applying for his license. The decomposition of the subject given him for the demonstration was so far advanced, that Chambon drew the attention of the Dean to it, but he was required to go on. One of the four candidates, Corion, struck by the putrid emanations which escaped from the body as soon as it was opened, fainted, was carried home, and died in seventy hours; another, the celebrated Fourcroy, was attacked with a burning exanthematous eruption; and two others, Laguerenne and Dufresnoy, remained a long time feeble, and the latter never completely recovered. 'As for Chambon,' says M. Londe, 'indignant at the obstinacy of the Dean, he remained firm in his place, finished his lecture in the midst of the Commissioners, who inundated their handkerchiefs with essences, and, doubtless, owed his safety to his cerebral excitement, which during the night, after a slight febrile attack, gave occasion to a profuse cutaneous exhalation.'" †

The late Dr. Armstrong gives a very striking instance of injury inflicted from a post-mortem examination:—

"A medical man," he says, "made a dissection of the body of a lady who died consumptive, and, being short-sighted, he held his eyes, and, consequently, his mouth, near the lungs, during the examination. He felt a disagreeable stench, which he could not get rid of; and that very night a cough arose which never left him from that time till he came to London, and then he was certainly in a state of confirmed consumption." The Doctor continues—"One solitary case would

^{*} Gatherings from Grave-yards, p. 132. † Mr. Chadwick's Report, p. 3.

not be sufficient proof, but I have seen others bearing upon the same point, which incline me to conceive, that the odour of matter in the lungs of an individual who is consumptive, operates either as a specific poison, or as a local irritant, I do not know which, and excites consumption in those who are predisposed to it."

You thus perceive that the exhalations from the dead body, even before it has been committed to the earth, are capable of exciting fatal disease in persons immediately exposed to them. Having proved this fact, I shall proceed to show that the same morbific emanations give rise to similar results after the burial of the corpse—that no protection is afforded by the covering of earth which ought to hide for ever the bodies of the departed.

Here two series of facts present themselves:—First, the injurious consequences which result from exposure to the malaria of vaults and open graves; second, the evils inflicted by the poisonous atmosphere of crowded burial-grounds, such as they exist, inevitably exist, in the midst of this Metropolis, and of all densely populated towns.

The illustrative facts here press on me in such numbers, that my only difficulty is to select. Let us commence with sudden death, for sudden death has frequently been the consequence of compelling men to expose themselves to the fatal poison of that human charnel-house—a pauper grave. There are many such cases on record; without entering into details, I shall mention to you a few of the most remarkable examples.

On the 17th August, 1744, at 6 o'clock in the evening, a man was buried in one of the common graves of the parish church of Notre Dame, at Montpelier; the grave-digger employed became convulsed the moment he entered the pit, and fell lifeless to the bottom. A man named Robert Molinier, in attempting to rescue the grave-digger, fell a victim, and died as soon as he reached the bottom of the grave. A third individual, named Balsalgette, brother to the grave-digger, having descended in search of the body of Molinier, found that he was unable to resist the odour; he staggered to the ladder, used every effort to ascend, but at the third step fell back lifeless. Another man named Sarrau, who descended into the grave, holding by a rope, became insensible, was drawn up half dead, had vertigo and numbness, which within a quarter of an hour were succeeded by convulsions and faintings; ultimately he recovered, but was for a long time pale and emaciated, and throughout Montpellier bore the name of the "Resuscitated." John Molinier attempted to descend into the pit, but had scarcely entered it when, feeling himself suffocating, he gave signs to be drawn up and supported; he came up so weak and faint, that a moment's delay would have been fatal. †

These facts, published by Dr. Haguenot, of Montpelier, may be compared with similar ones which have happened in England and elsewhere. Thus the celebrated

^{*} Gatherings from Grave-yards. † Idem, p. 92.

Italian author, Rammazzini, relates the case of a sexton, who was suffocated, and fell dead, in consequence of going down into a grave to strip a corpse which had been recently deposited there. Many of you, doubtless, remember the case, which occurred in September, 1838, in the church-yard of St. Botolph, Aldgate. Thomas Oakes, a grave-digger of six months experience only, should have rung the chimes of that church at half past ten o'clock in the morning, but, meanwhile, it was announced by the loud screams of a female that he was lying on his back, dead, at the bottom of a pauper grave 20 feet deep. Edward Luddett, a fish dealer, volunteered to descend into the grave; he reached the bottom of the ladder, attempted to raise the head of Oakes, appeared to the bystanders to be "struck, as if with a cannon ball," and instantly fell dead at the bottom of the pit in the opposite direction to the grave-digger.*

The abominable condition of this grave-yard had frequently been brought under the notice of those who were perpetuating the nuisance and extending the danger, and it is a question for our consideration how far those persons were not legally, as they were beyond doubt morally, responsible for a loss of life which the most common foresight would have prevented. Mr. Tyars, the deputy of Aldgate Ward, swore, at the inquest holden on these unfortunate men, that he had frequently "sent a presentment, couched in the strongest language, to the Archdeacon of the diocese, or his surrogate, descriptive of the filthy state of the vaults and the burying-ground, but no notice had been taken of the evil." Now, I once more desire to remonstrate most strongly against the deadly and disgusting practice of this "pauper pit" system; I protest in the name of science and of our common humanity against its continuance, and that for many reasons which I have not time to enter into. It is a selfish and an unprincipled act to drive out into the atmosphere the most deadly and poisonous gases, always found in these pits, into the surrounding atmosphere. This is done, I assure you, all over London; lighted shavings, paper, straw, &c. are used for the purpose. The gases, charged with animal compounds, for I have obtained them (and they are much heavier than atmospheric air), are thus driven out of these deep pits and mixed with the atmosphere, which, as I have said, is the first food of the infant, the last food of the old man. If the wretched and depraved class who are the agents of those who profit by these practices, cannot, as you have seen, breathe these compounds without paying the penalty of instant death, whence do they derive their right to poison the dweller in the neighbourhood, the visitant, or the passer by? When these questions are answered, I have others to propound.

I may mention here a case of sudden death, reported in the Annales d'Hygiéne Publique in 1840. Two men were employed in removing four dead bodies from a tomb in the Eastern Cemetery, Paris, into which a quantity of water had penetrated. On removing the third coffin their feet slipped, and the water was violently

^{*} Gatherings from Grave-yards p. 138.

agitated; an intolerable odour issued forth. One of the men fell instantly dead, the other was seriously ill for a month.

That the poison which is thus capable, when concentrated, of instantly destroying life, may, when diluted with atmospheric air, produce either disease or disturbance of health, we can readily imagine.

Let us take, in the first instance, the evidence of injuries inflicted by VAULTS and OPEN GRAVES. To the emanations from these receptacles of the dead, sextons and grave-diggers are naturally most exposed, and it is amongst this class of persons, therefore, that we obtain the most striking examples. I shall first give you some cases which have fallen within my own experience, and then confirm the results of my personal observations by the testimony of various writers in this and other countries.

Mr. Whittaker, an undertaker, employed by me in 1839, went, in company with my pupil, Mr. Sutton, to the vaults of St. —— church, for the purpose of obtaining some gas. A leaden coffin, "cruelly bloated," as one of the grave-diggers expressed it, was chosen for the purpose; the body had been placed in the vault eight years previously. The instant the coffin was tapped a most horribly offensive gas issued forth in large quantities. Mr. Whittaker was instantly affected, and was incapacitated from work for some days. His symptoms were prostration of strength, pains in the head, giddiness, and general involuntary action of the muscles, particularly of the arms, which continued for several days afterwards; these symptoms had been experienced, more or less, by Mr. W. on many previous occasions, but never to so great a degree. Mr. Sutton, less accustomed to the poisonous vapours, was confined to bed for seven days with serious illness.*

A grave-digger was employed to obtain a portion of gas from a body interred in lead, in the vaults of St. ——; the man operated incautiously; he was struck to the earth, and found lying upon his back; he was recovered with considerable difficulty.†

In a burial-ground in Chelsea, a grave-digger was employed in preparing a grave close by a tier of coffins; he had dug about four feet deep, when the gas issuing from the bodies exposed affected him with asphyxia; he was found prostrate,—assistance was obtained, and with some difficulty he was recovered.‡

In the year 1835, a vault was opened in the aisle of the church of Little Birkhampstead, Herts; the body of a child had been placed in this vault about fifteen months previously; upon removing the stone, a peculiarly offensive smell was emitted,—the vault was found nearly full of water, in which the coffin was floating. My informant, the then sexton, Benjamin Smith, now living at 8, Princes Street. Drury Lane, was instantly affected with nausea, followed with diarrhæa, excessive trembling, prostration of strength, and loss of appetite; these symptoms continued some weeks. He believes that his health has seriously

^{*} Gatherings from Grave-yards, p. 133. † Idem, p. 133. ‡ Idem, p. 134.

suffered in consequence. The bricklayer and labourer employed in opening the vault and taking out the water, were also affected, and Mrs. Smith, whilst cleaning the inside of the church, several days afterwards, was sensible of a very offensive odour, which was perceptible during divine service on the Sunday following.

Here is a still stronger case:—

William Jackson, aged 29, a strong, robust man, was employed in digging a grave in the "Savoy;" he struck his spade into a coffin, from which an extremely disgusting odour arose; he reached his home, in Clement's Lane, Strand, with difficulty; complained to his wife that he had "had a turn; the steam which issued from the coffin had made him very ill;" he had pain in the head, heaviness, extreme debility, lachrymation, violent palpitation of the heart, universal trembling, with vomiting. His wife stated that the cadaverous smell proceeding from his clothes affected her with trembling, and produced head-ache; she mentioned that she had been before affected in a similar way, although more slightly, from the same cause. Jackson recovered in a few days, although considerably debilitated. Compelled by the poverty of his circumstances, he attempted, seven days afterwards, to dig a grave in Russell Court, Drury Lane; in this ground, long saturated with dead, it was impossible, without disturbing previous occupants, to select a grave; a recently buried coffin was struck into,—the poor fellow was instantly rendered powerless, and dragged out of the grave by John Gray, to whom he was an assistant. Jackson died thirty-six hours afterwards.*

Mr. Paul Graham, residing in my immediate neighbourhood, had buried a child in Russell Court, Drury Lane; an acquaintance of his was buried in the same ground a few weeks subsequently; the survivors having a suspicion that this body had been exhumed, an undertaker was employed to ascertain the fact. Mr. G., accompanied by another person, was present during the time the lid of the coffin was partially removed; a most offensive effluvium was emitted; he was affected with instant vomiting, head-ache, confusion of intellect, prostration of strength, and trembling; the other person became unwell from the same cause; the undertaker had carefully averted his head during the partial removal of the lid of the coffin, and thus escaped its effects.

The following important fact was communicated to me by one of the parties immediately concerned:—

Mis. Sarah Hunt, of Jermyn Street, died September 7th, 1832, and was buried in the rector's vault, in St. James's church, Piccadily, on or about the 16th. The undertaker had occasion to go down into the vault, near the communion-table; he had done the work of the church nearly thirty years, and was well acquainted with the localities; the grave-digger had neglected to take up the slab which covered the vault. The undertaker being pressed for time, with the

[·] Gatherings from Grave-yards, p. 134

assistance of the son of the deceased, Mr. J. Hunt, removed the stone. The two descended, taking with them a light, which was almost instantly extinguished. Upon reaching the lower step of the vault, both were simultaneously seized with sickness, giddiness, trembling, and confusion of intellect. The undertaker raised his friend, who had fallen on the floor, and with difficulty dragged him out of the vault; he himself, although a man previously in excellent health, was seized with vomiting the next day, and for twelve months rejected his food; at the end of this period, after having been under the care of many medical men, he consulted the late Dr. James Johnson from whom he derived great benefit. The patient is convinced that his health has been completely ruined from this cause; he is now obliged, after a lapse of seven years, "to live entirely by rule." The young gentleman who was with him, was subsequently under the care of many medical men upwards of two years; his principal symptoms, those of a slow poison, developed themselves gradually, but surely; he was attacked with obstinate ulceration of the throat, which were not removed until more than two years had elapsed, although he had frequent change of air, and the best medical assistance that could be obtained.

Here is another instance:-

Mr. Tombleson, a highly respectable undertaker, of No. 4, Warwick Street, Golden Square, informed me that about eleven years ago, he attended the funeral of an "Odd Fellow," on a Sunday, at Enon chapel, Clement's Lane, Strand. He smelled a disgusting stench; he was seized, within forty hours, with a violent pain in the back of the left hand, continuing about an hour; he had "cold chills" within half an hour afterwards; he took a glass of rum and water, and went to bed. He arose in the morning very ill, and consulted Dr. Burnett, of Golden Square, who ordered him home, and told him that he would "give him three weeks before he got up again." This prognostic was true to a certain extent, for the patient kept his bed nine weeks, with a malignant typhus, and all its concomitant evils.*

On the 10th of July, 1838, I was called to attend a widow, named Adams, the house-keeper to a gentleman residing in Gray's Inn Square. Some days before

^{*} Mr. Tombleson, whom I had the pleasure of seeing and conversing with some time since, was employed as the undertaker in the case mentioned as occurring in St. James's church. He has therefore risked his life in two opposite localites, under similar circumstances. The more aristocratic church-vault and the Enon chapel receptacle were equally pestiferous. This brave man, who fought under the immortal Nelson, and was repeatedly wounded in general engagements during the late war, met with a deadlier enemy than the bullet or the boarding-pike; and he has pertinently remarked to me that he thought it hard that he, who never feared his country's foes, should have been twice prostrated by an invisible and, as he previously thought, contemptible opponent.

Mr. Tombleson informs me, as these sheets are passing through the press, that Mr. John Hunt, mentioned in the preceding case, has not recovered from the consequences of the exposure.

my arrival, she had been attacked with pain, which she referred to the region of the liver. The pulse, on my first visit, was weak and easily compressible, ranging between one hundred and twenty and one hundred and thirty. She complained of no pain, her heart beat tumultuously, the tongue was brown and dry, and protruded with difficulty; her general symptoms were those of action without power. I carefully watched the case; but, notwithstanding all my efforts, my patient sunk on the 22nd of the same month. She had been a regular attendant at Enon Chapel. She died of typhus, accompanied with symptoms of extreme putrescency. Can the cause be problematical?*

Mr. Wm. Morgan, undertaker, 30, Russell Court, Drury Lane, was employed in making room in a brick vault, in the church-yard of ----, for the reception of the remains of Admiral ---. He was compelled to arrange several bodies, which had been deposited in lead, in this vault. During the operation he was obliged to stand upon the top of some coffins; these gave way, and the gas produced by the decomposition of the bodies enclosed within them escaped. He was instantly sensible of a coppery taste in his mouth, with dryness and huskiness of the throat. He had confusion of intellect, extreme pain in the head, giddiness, trembling, particularly of the lower extremities, and immediate sickness upon the first inspiration of the gas. His three assistants, who were near the mouth of the tomb, were affected in a similar manner, but in a less degree. Every man within the reach of the malaria was instantly seized with vomiting. They escaped as quickly as possible from the vault into the open air, supporting each other by the arms. Mr. Morgan was conveyed home, took to his bed, had what his medical man, Dr. Davis, termed "a malignant typhus fever," and was thirteen weeks unable to follow his employment. He was previously to this exposure to the exhalations of the dead in excellent health, but his constitution was completely shattered, and he is since dead.

Mr. Jones, undertaker, of Devereux Court, Essex Street, Strand, deposited a body, contained in a leaden coffin, in the catacombs of Kensal Green Cemetery. After a lapse of about three months, he was informed by the Secretary of the Company that "the coffin leaked, and he must see to it." Mr. Jones and assistants accordingly went to the cemetery. On inspecting the leaden coffin, it was found that a small hole existed; this was enlarged with a gimlet by an assistant, Mr. T. Moxley. The gas which escaped extinguished a candle three times, and rendered him incapable of following his occupation for several weeks.

During the demolition of the old church of St. Dunstan's, the dead in the vaults were removed. The labourers employed were well supplied with brandy, and under the influence of a half-drunken excitement, completed their task. William Mutton, a labourer, a few hours after, complained of a nauseous taste in the

^{*} Gatherings from Grave-yards, p. 136.

mouth and throat, severe pain in the chest, accompanied with cough; his skin subsequently became of a deep yellow tinge, and extremely harsh and dry. This man was at times so affected by the effluvia, that he was compelled to support himself against the wall of the vault. In removing the body of a man who had committed suicide, the gaseous exhalation was so powerful that he was rendered unconscious for a considerable period. He invariably declared that this was the cause of his death.

William Chamberlain, No. 1, Little Wild Street, Great Queen Street, was many years since employed in preparing a vault in the Green-ground, Portugal Street, Lincoln's Inn Fields, for the reception of a body. He had placed one foot on a leaden coffin in the vault and the other on the brickwork of the entrance, when he perceived a "gush, like a puff of wind, come from the coffin under his foot." He felt his power leave him, and from that time (although he never had a day's illness previously) he has never been well. His health has gradually depreciated. Since the year 1836, he has had incomplete paralysis of the upper and lower extremities, and is now perfectly incapable of following any laborious occupation.

These cases prove how multifarious are the forms of injury inflicted by decaying animal matter. I shall presently endeavour to explain this diversity of result. We do not want examples to show that the same poison will give rise to the same specific consequences, thus placing beyond doubt its pestilential agency. Here is the proof: -Thomas Beale, of No. 2, Cromwell Place, Little Shire Lane, was employed in the month of January, 1840, in assisting William West, beadle of St. Mary le Strand, to clean up the rector's vault for the reception of a body. On the evening of the same day Beale was attacked by vomiting, cough, and extreme lassitude, which continued for six days. With these general symptoms were conjoined others of a significant character, which, during my attendance on him, I did not fail to notice. He had a peculiar eruption, which first appeared over the breast, and within two days spread over the whole body. On the 14th day from the appearance of this eruption, there occurred a very painful enlargement of the glands of the left groin and armpit, these suppurated extensively during eight weeks. Four months afterwards this man still bore remains of the eruption over his arms. West, the beadle, an elderly man, was attacked by the same eruption, suffered for some time in a similar manner, with the exception of the glandular swelling. The much younger and stronger man, Beale, escaped ultimately, after a long struggle, while West, whom I attended, died of typhus fever.*

To my own pretty ample experience in this field I may add that of many other medical practitioners. Mr. J. C. Atkinson, surgeon, of Romney Terrace, West-

^{*} Report on the Effect of Interment of Bodies, p. 211.

minster, to whom the public is indebted for much useful exertion in this matter, relates the following:—

"William Green, a grave-digger, while employed in his vocation in the church-yard of St. Margaret's, Westminster, was suddenly seized with faintness, excessive chilliness, giddiness, and inability to move his limbs. He was seen to fall, was removed home, and his usual medical attendant was sent for. The poor fellow's impression was, that 'he should never leave his bed alive; that he was struck with death.' He was subsequently removed to the hospital, where he died in a few days. No hope was entertained, from the first, of his recovery. Mr. B., the medical attendant, was seized with precisely the same symptoms. He was attended by me; I apprehended from the first a fatal result; he died four days after the decease of the grave-digger. The fatal effects of this miasm did not end here; the servant was seized on the day after the death of her master, and she sank in a few days. There can be no doubt of the fact, that the effluvium from the grave was the cause of the death of these three individuals. The total inefficiency, in the three cases, of all remedial means, showed the great power of the virus, or miasm, over the animal economy, from the commencement of the attack."

I may mention that so long back as 1814 the Commissioners for the Improvement of Westminster reported to Parliament that St. Margaret's church-yard was no longer fit to be used as a burying-ground; yet, the "authorities" have continued to inter bodies there up to the period of this lecture.

Mr. Atkinson's second case refers to this same grave-yard:—

"On August 23rd, 1845, he was requested to attend the funeral of his patient, Miss —, at St. Margaret's church-yard, Westminster. During the performance of the burial-service, the situation of the parties was as follows:—The clergyman stood to the windward, or at the head of the grave; the mourners were placed laterally; whilst a mute occupied the foot, and to the leeward side of the grave. The mute, as the service advanced, staggered, was unable to keep himself erect, and became deadly pale; he was removed to the vestry-room, suffered from pain in the bowels, which ended in diarrhea; his health was deranged during the two subsequent days; on the night of the funeral, the undertaker was seized with diarrhea and faintness, and continued in a debilitated state for some days after; one of the mourners on his return home was affected with the same symptoms, and rendered unable to follow his employment for an entire week; and it may be as well to observe here, as a remarkable coincidence, that the wife of one of the mourners, was, late on the night of the funeral, or early next morning, attacked with apoplexy, and expired in two or three days."

In many cases the effects of incautious exposure to putrid exhalations have been much more severe and widely extended than those just related.

^{*} Parliamentary Report, p. 128.

Dr. Maret tells us that a mild catarrhal fever prevailed at Saulicu, in Burgundy; the body of a very fat man was buried in the parish church of St. Saturnin; twenty-three days afterwards a grave was opened by the side of the former to bury a woman, who had died of the same disease. A very fetid odour immediately filled the church, and affected all those who entered. In letting down the body a rope slipped, by which the coffin was shaken; a discharge of sanies followed, the odour of which greatly annoyed the assistants; of one hundred and seventy persons who entered the church, from the opening of the grave until the interment, one hundred and forty-nine were attacked with a malignant putrid fever, which had some resemblance to the reigning catarrhal fever, but the nature and intensity of the symptoms, and the peculiar eruption which accompanied the disease, left no doubt that the malignity was owing to the infection of the cathedral. As the persons who were affected principally dwelt near the church, and the cause was known, a stop was happily put to the contagion, but not before it had carried off thirty, among whom were the Curé and the vicar.*

In the Cyclopædia of Practical Medicine (vol. iii. p. 356), we find a well authenticated case where the effects produced were very similar to those of plague. One of the crew of an American ship near Canton died of dysentery. He was taken on shore to be buried by four comrades, two of whom began to dig his grave. While thus employed, they came on the coffin of a man who had been buried two or three months previously, and the spade went through the lid of the coffin, from which instantly arose an effluvium as intolerable as it was deadly. The two men were struck to the earth nearly lifeless, and such was the overpowering and disgusting odour, that it was with the greatest difficulty their messmates could approach near enough to drag them from the spot. On recovering from the immediate effects of the poison, they were removed on board their vessel. The succeeding morning they presented every symptom of malignant fever, so nearly resembling plague, that it was impossible to doubt its identity; they had, in fact, the "tokens" of De Foe, the "petechiæ" of Hodges, and the pestilential bubo. Both men died, one on the fourth and the other on the fifth day after the exposure. The two other men were attacked by a middle form of the same disease, and recovered.

M. Pariset has recorded an occurrence which bears some analogy to the one I have just related. In the year 1823, the Viceroy of Egypt gave orders for the construction of a large cotton manufactory in the village of Kelioub, four leagues to the north of Cairo. The foundation of the building was unfortunately laid in a burial-ground. One of the masons, while employed at work, suddenly complained of head-ache, was carried home, and died in a few hours. On the same day, eight individuals, comprising his family, were attacked by plague and cut off.

^{*} Gatherings from Grave-yards, p. 97.

The disease rapidly spread through the village, destroying 2,000 out of its 5,000 inhabitants, and thence to Cairo, where the mortality was most appalling. The locality of the village of Kelioub had been perfectly healthy up to the time of disturbing the bodies in the burial-ground.*

The relation of cause and effect are clearly traceable in the striking examples which I have now related; if we require anything more convincing, it may be found in the fact that even animals are sometimes destroyed by the same miasm which has, as I have already proved to you, the power of producing instant death, and of slow poisoning.

In the year 1796, M. Vaidy, a surgeon in the French army, was directed to superintend the burial of about 400 soldiers and 200 horses slain in battle near the town of Nuremberg. The surgeon remained on horseback during the time of the interment, which occupied the greater part of the day. He suffered the whole time from nausea and violent colic; and the horse which he rode, a young and powerful animal, gave signs every now and then of severe distress. On returning to the camp, the horse lay down in the stable, and died almost immediately from spasm of the intestines. In the evening, the surgeon was attacked by dysentery, which continued for several days. Four orderlies who attended him were also attacked by the same disease.†

Some months since, being on a visit in the locality, I occasionally made an inspection of the grave-yards in Hull. Passing down one of its chief thorough-fares, my attention was directed to an ancient church, the chimes of which were playing facetiously enough, "Life let us cherish." Immediately opposite at a druggists, were two large notice boards, eulogising the properties of an anti-cholera mixture, which was highly recommended as "a certain cure for all complaints of the bowels." "Life let us cherish," pealed out the chimes, "cherish whilst the taper glows," whilst vaults, church, and grave-yard, were pouring out invisible but deadly miasms that were slowly poisoning the blood of the living. The cholera manufactory on a large scale (for there must be many thousands of dead bodies in that old grave-yard; and in those vaults) was just opposite the anti-choleric shop, which solicited the patronage of the living, whilst the grave-yard,—a place which merits the following description, noted down on the spot,—I was assured by the grave-digger, has yet plenty of room for more dead customers:—

The surface of the soil is in a most filthy, neglected, and disgusting state. Here the end of a mutilated coffin peeps out; there the foundation of a brick vault is exposed to view, and only prevented from falling by being shored up

^{*} Annales d'Hygiene. M. Pariset on Plague, tom. vi. p. 243.

[†] Dict. des Sci. Med. Art. Dys., tom. x.

[‡] The ground is supposed to have been first dedicated as a burial-place about the year 1301. It is described in the will of John Schayl, in 1303, as "The cemetery of Holy Trinity, of Kingston-upon-Hull."—See Cemetery Burial.

with a strong pole. Almost every bone of the human body may be seen scattered around; even while noting down the unchristian state of the burial-ground, one of the dirty urchins playing with the bones of the dead, cast at me the jaw-bone of an adult, and then turned round to its fellows to continue the shocking and revolting scene of throwing human bones at each other. Bones, ashes, and coffin-wood covered the surface where I stood. Not a single blade of grass was visible.

Within a few feet of the spot was a recently erected upright grave-stone, on which, as if in bitter irony, had been chiseled the following inscription:—

In Memory

OF

ELIZA JANE JONES,

Snowshall,

Who died October 16, 1844, AGED 3 MONTHS.

"Oh! snatched away in beauty's bloom,
On thee shall press no pond'rous tomb,
But on thy turf shall roses rear
Their leaves, the earliest of the year,
And the wild cypress waive in tender bloom."

Within a few feet of this grave I noticed a large and expensive brick tomb. Between it and the church a furnace has been constructed for heating the interior. The tomb, whose foundation has been shaken, is shored up by a strong pole placed between it and the church.

In the year 1830, Mr. William Freeman was buried in this ground; in 1836, his daughter; in 1844, his wife. Yet when I visited the place on the 12th of September, 1846, I found the slab which had been erected to commemorate the deaths of these individuals mutilated, displaced, and converted into the pavement leading from the north door of the church into the vaults.

The entire aspect of this wretched locality hints most unmistakably to survivors the folly of making expensive erections to perpetuate memories in town grave-yards. Many bodies were disturbed during the making of the vaults in 1845, which are an evidence of mistaken economy and worse judgment. The steps and landings leading to these vaults are composed of whole and mutilated grave-stones.

Under the aisle, in the vaults which run from east to west, is situated a pump, from which issues a most offensive "dead man's" smell. It is employed in getting rid of the water which has percolated through the grave-yard, and which lies in puddles on the floor of the vaults. This most offensive material, containing dissolved portions of dead bodies, as I have said, is pumped up into the common sewer, and must pass off with the general contents through the gully-holes into the atmosphere.

The walls and roof of the vaults are damp and offensive. Several compartments containing bodies, or remains of bodies, are covered in, some with slight brick-work, others by old and broken grave-stones, which have evidently served as mementoes of the dead in the church-yard.

No language that I could employ would convey to your minds an impression of the effect that the circumstances I have briefly detailed to you made upon me. I conversed with the grave-digger, as he called himself. He was a youth, but had acquired more than the usual cunning of his craft. I asked him his opinion of the water in the pump, which he declared was excellent. To prove his sincerity, I invited him to give a practical test of its goodness by drinking a pint; although, had he attempted it, I should have prevented his doing so. I offered him various sums, placing, finally, some pieces of gold on the tomb-stone on which he sat, which I told him, in presence of a lady and gentleman who were with me, should be his if he would give me in his own person the proof required. This he declined.

A few days previously, I conversed with a workman who had been employed in repairing the church. He told me that he had suffered dreadfully in health whilst so engaged. I took down the following statement from a poor fellow, another victim to a system which has sacrificed too many. The narrator, whose name I suppress, because his surviving family might be exposed to official oppression, informed me that having been employed in removing bodies in the church and church-yard, he struck with a spade a coffin containing a body, from which issued a most intolerable effluvium. He was instantly affected with vomiting; had shivering, and loss of power; says, he got such a "bad smell," that he could not get rid of it for very many weeks. He used to smoke his pipe in order to get rid of the odour with which his body seemed to be charged. For months afterwards he constantly complained of chilliness and cold feet. Frequently shook violently on going to bed, and had bottles of hot water applied to restore the warmth of his body. Constantly felt weary and powerless. Was never ill before this exposure, excepting from an occasional attack of quinsey.

Such are the rough outlines of this melancholy case. A man in the very prime of life two years previously, of strong frame, in full health, was allured by the prospect of pay to his own destruction.

Although "dead men tell no tales," they furnish, to those who will read them, instructive histories; and, as I have proved, although passive in their resistance, they are fearful resenters of insults. Thus, in the present example, they dragged their victim by the "slow staggering race" of consumption through "the valley of the shadow of death."

I should mention to you that there were other cases of various kinds resulting from the same desecration, but my informants, although able and willing to put

me on their track, dare not. They were poor men, and feared their employers and superiors.

One of them told me that the horses employed in carting away the material from this burial-place lost their appetite, and gave signs of great suffering; that a horse, valued by him at £25, had never since been well, and that he should be happy to receive £5 for him.

Another contractor lost his horse, a valuable animal, which died shortly after being employed in carting away the human "rubbish."

So much, then, for the vaults, church, and church-yard of the Holy Trinity. It is a foul profanation to mix up such abominations with such a name.

I have thus explained to you, in a manner which I trust has contributed to make a difficult subject intelligible, the various effects produced on the body by the gaseous products of human decomposition. But one part of my question has remained untouched; it is the influence exercised on health by exhalations from grave-yards. This portion, however, involves considerations of such extreme importance, that I must ask permission to make it the subject of a separate Lecture.

THE END OF LECTURE III.

APPENDIX.

THE following statements, which I have received from Mr. George Milner, of Hull, since my Lecture was delivered, fully corroborate those given in the text:—

" HOLY TRINITY.

"So early as the year 130I, in a pastoral letter of Archbishop Corbridge, mention is made of the dedication of a cemetery to the chapel of the town of Kyngestone, within the limit of the parish of Hepell. This burying-ground is afterwards described in the will of John Schayl, in 1303, as the cemetery of Holy Trinity of Kyngston-upon-Hull; and in 1320, King Edward II. granted a vacant piece of ground, called Le Hailles, which lay at the west end of the church, for the enlargement of the church-yard. This plot of ground, which, including the site of the church, only contains about 5,040 square yards, has ever since (say for between 400 and 500 years) been used as a place of interment for the parish; it is crowded every where with bones and coffins—the latter in many instances within a foot of the surface. The ground, as may readily be imagined, is one mass of decomposed flesh and blood; it is raised two or three feet above the level of the streets adjoining, notwithstanding those streets have frequently been raised by repaving, &c. Holy Trinity Church is situated in the marketplace, and entirely surrounded by dwellings; at the west end a row of houses is built on, and overlooks the ground, and in summer months offensive smells are frequently complained of. An Act of Parliament was obtained, and a new ground opened for this parish, containing three acres (say about 14,520 square yards). This ground has long since been filled, and no interment can now take place without disturbing human remains. The ground has also been raised, by interments, several feet above the level of the streets adjoining.

"Let us now turn to the other parish in the old town:-

"ST. MARY'S CHURCH, LOWGATE,

Was founded about 1327 or 1333; or, at all events, it was either built or enlarged about this time, as it is described in a license, granted by Archbishop Melton to the Prior and Brethren of North Ferriby, sanctioning the performance of divine offices in the chapel, and the rites of sepulture in the ground. The present church-yard contains an area of about 750 square yards; it is frightfully crowded,

APPENDIX.

and the ground raised four or five feet above the street level, and, in some parts, is even with the bottom of the windows. The church itself is now considerably below the street level, and you descend by steps into the interior; graves cannot now be opened without mangling and displacing the remains of others. A new ground was obtained for this parish in 1774; it contains about 2,772 square yards, but is now very much crowded—so much so, that it is necessary to prick with an iron rod whenever a new grave is to be made.

"Such is the present state of things in the parishes of Holy Trinity and St. Mary's, containing a population, according to the last census, of 41,130. Let us now look at the table of mortality of these two parishes. According to the returns published by authority of the Registrar-General from the years 1838 to 1846, inclusive, there have been no fewer than 10,601 deaths recorded in these parishes. How, then, is it possible, under existing arrangements, that the violation of the grave can be avoided? No interment can take place without desecration—the bones of the older tenant must be disturbed to make room for the mortal remains of another, which, in too many cases, are again dug up, long before the fulfilment of the text, 'Dust thou art, and unto dust shalt thou return.'

"Few towns in the kingdom are in greater need of legislative interference than this; and without such interference the abuses can never be effectually remedied: besides, vested interests can only in this way be protected. In reforms of this kind the public can afford and ought to pay for such improvements as are for the benefit of the community at large.

"The population of the whole town, according to the last census, was 62,491; it is now upwards of 70,000, and the old church at Sculcoates, and the old ground at Drypool, with the other churches and chapels, are altogether inadequate to the wants of our growing population, setting aside the iniquity and folly of burying the dead in the midst of the living."

METROPOLITAN SOCIETY

FOR THE

BURIALS IN TOWNS, ABOLITION OF

17, NEW BRIDGE STREET, BLACKFRIARS, LONDON.

(ESTABLISHED NOVEMBER, 1846).

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FOURTH OF A SERIES

OF

LECTURES

DELIVERED AT THE MECHANICS' INSTITUTION, SOUTHAMPTON BUILDINGS, CHANCERY LANE, AUGUST 13, 1847,

ON THE ACTUAL CONDITION OF THE

METROPOLITAN GRAVE-YARDS.

BY GEO. ALFD. WALKER, Esq., Surgeon.

"No burying-places should be tolerated within cities or towns, much less in or about churches and chapels. This custom is excessively injurious to the inhabitauts, and especially to those who frequent public worship in such chapels and churches. God, decency, and health forbid this shocking abomination." * * * From long observation I can attest that churches and chapels situated in grave-yards, and those especially within whose walls the dead are interred, are perfectly unwholesome; and many, by attending such places, are shortening their passage to the house appointed for the living. What increases the iniquity of this ahominable and deadly work is, that the burying-grounds attached to many churches and chapels are made a source of private gain. The whole of this preposterous conduct is as indecorous and unhealthy as it is profane. Every man should know that the gas which is disengaged from putrid flesh, and particularly from a human body, is not only unfriendly to, but destructive of, animal life. Superstition first introduced a practice which self-interest and covetousness continue to maintain."—Dr. Adam Clarke's Commentary on Luke vii. v. 12-15.

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FOURTH OF A SERIES

OF

LECTURES

ON THE

METROPOLITAN GRAVE-YARDS.

LADIES AND GENTLEMEN,

In my last Lecture, I endeavoured to lay before you, in plain and simple language, an account of the varied and numerous injuries inflicted on Public Health and on Public Morality by the unwise custom of intra-mural sepulture. I explained to you the nature and action of morbid I showed in what manner these poisons may be introduced into the human body, and I brought forward numerous cases which incontestibly prove the fact—that the respiration of putrid exhalations from dead bodies, before burial, or from vaults and open graves, is highly injurious to the health of man and animals. My next duty will be to demonstrate that analogous effects are produced by the vapours which exhale from over-crowded burying-grounds. Here the disengagement of morbific matter is more gradual, the poison less concentrated, and persons are seldom directly exposed to its influence for any considerable length of time; it is, therefore, natural to expect that the relation of cause and effect will be less evident, less easy to establish. Yet when you shall have well weighed the evidence which I am about to produce, you will, I am satisfied, leave this room with the firm conviction that the saturated grave-yards of this Metropolis are centres of infection, producers of lingering disease or sudden death, and that such places should at once and for ever be removed from amongst us.

It is not my desire to pervert your judgments by exaggerated statements, or to excite your minds by imputing to others unworthy motives and unchristian practices; but it is my duty to expose before you, even in its utter nakedness, the baneful—the deadly—system of intra-mural sepulture, and from that duty I shall not shrink.

Here I may perhaps remark, that those who have no reverence for the human form in its humblest, its most suppliant, its most defenceless condition, can have no respect for the living. Yet are there numerous bodies of men—systematic mutilators—"MANAGERS" of the dead, daily—hourly employed in the horrible work of defacing God's image, and that for hire. A fearful, a tremendous, responsibility rests on the employers and the employed, although the poor needy wretches who commit the abominations at which their masters wink, are perhaps the least guilty.

I confess to you, that, having long seen and deeply regretted the gross, the scandalous, neglect of the sanatary condition of my countrymen, I have frequently denounced that discursive philanthrophy which seeks out objects for the exercise of its maudlin sympathies on the banks of the Niger and elsewhere, whilst it has scarcely a thought to spare for your Bethnal Greens, your Whitechapels, and other places where masses—hundreds of thousands—of our town—aye, and of our village populations also, with wan looks, wasted forms, and outstretched hands, demand, in the name of God and their birthright, that they should be the first objects on whom the lion's share of our philanthrophy should be bestowed. A reparation far too long deferred has, however, been commenced, and until the long arrears of duties neglected, and obligations undischarged, are atoned for, Science should (without derogating from her dignity, or impairing her efficiency) denounce—where reasonings, based on irrefragable facts, are contemptuously derided or affectedly despised.

The escape of noxious effluvia from the surface of grave-yards is under any circumstances inevitable, but so long as they are allowed to continue in the midst of crowded populations they are specially injurious. In hardly any instance is it possible to enlarge the extent of the burial-ground, while the population, and with it the rate of mortality, are daily increasing. Hence a time must arrive when the grave-yard becomes overcharged, and from that period it becomes a hot-bed of infection. The time has arrived for the closure of the great majority of the Metropolitan grave-yards. It is vain to deny that which is matter of the most simple calculation. It requires no logic to prove that it is impossible to lodge fifty individuals in a room 10 feet square; and common sense must tell you that it is equally impossible to inter in a safe and decent manner 3,000 dead bodies in an acre of ground which can only hold 136.

Upon this point, I must enter into a few details, for though infinitely disgraceful and disgusting, they are all-important. Calculations, for the correctness of which I pledge myself, show that an acre of ground which contains 43,560 square feet, or 4,840 square yards, will decently and safely inter about 1,361 adult bodies. As we have a right to presume that the dead body is committed to the grave, there to mingle with its parent earth, we

must allow ten years for this process; and hence the number of adult bodies that an aere of ground will annually receive is 136.

Accurate returns have been made of the superficial extent of the parochial and some other burial-grounds of the Metropolis, and of the numbers of bodies annually interred in each. The annual average number of burials per aere, for the seven descriptions of burying-places comprised in the intramural grounds, is stated by these official returns to be 2,271. Now, if we divide this by 7, we have the average for each, which gives 324 burials annually to the aere. From the total, we may fairly abstract the burial-places of the Jews, and those of the Society of Friends, which are well conducted. This will give us five species of grounds, with an annual average of 2,130 burials to the acre, or an average of 426 for each. The proper number, you will remember, is 136 to the aere; in Germany, the average is only 110 burials per acre per annum. Thus, at the first glance, it is evident that our parish grave-yards are made to receive every year three times as many bodies as they ought, and four times as many as are permitted by the laws of well-regulated Continental states. The inevitable erowding of our graveyards may be illustrated in another way. The annual mortality of the Metropolis, at a low computation, is 50,000. Now, supposing the burials to be renewed every ten years (and this is the shortest period that should be allowed for the decomposition of the human body,) 444 acres would be required, whereas we have only 209. But this is not all. There are 182 parochial grave-yards in London. Of these, only 48 are confined within the proper limit of 136 burials to the acre; the rest exhibit various degrees of saturation, from 200 up to 3,000 per acre annually. This is scarcely credible, but official returns confirm the truth of what I assert. In very many the annual average per aere exceeds 1,000. I shall record them here:-

In St. Andrew's Undershaft, the average per acre is	1,278
In Portugal Street burying-ground ditto	1,021
St. Dunstan's, Fleet Street ditto	1,182
St. Dunstan's in the East ditto	1,210
St. John's, Clerkenwell ditto	3,073
St. Mary at Hill ditto	1,159
St. Olave, Tooley Street ditto	1,257
St. Swithin's ditto	1,760

So much for the eapabilities and condition of parish burial-places,

Amongst the burial-places of the Dissenters—

In Wickliffe chapel, Stepney, the average per acre is	1,210
Enon Chapel, Woolwich ditto	1,080
Parker Row, Dockhead ditto	1,613
Moor Field's ditto	1,210
Cannon Street Road ditto	1,109

Finally, amongst the private establishments, New Bunhill Fields is distinguished by an average of 2,323.

Let me again remind you, that the proper average of burials is 136 per acre annually. This simple fact will give you an idea of what must take place when either cupidity, necessity, or neglect increases this average from It is humiliating to think that a Metropolitan parochial ground, St. John's, Clerkenwell, stands at the head of these unchristian abominations,—unchristian, indecent, pestiferous in every respect, because when a proportion of 3,073 corpses are annually interred in an acre of land, it follows as an inevitable consequence that the bodies of the deceased can remain in the ground only five months instead of ten years. stacking of coffins in deep pits, the brutal dismemberment of bodies, the consumption of coffin wood in many localities, the absolute supersaturation of the soil, which can neither retain nor dissolve the putrescent matters with Hence the daily scenes which outrage every moral which it is loaded. and religious sentiment, - hence the danger to mourners from attending funerals in such places, -hence the insidious infection which (more especially in the warm season) poisons the atmosphere; and thus, by undermining health, or begetting disease, hurries thousands to an untimely end, again to become the subjects of fresh indignities, the centres of infection to survivors, the distributors of pestilential emanations, and the centralizers of disease.

But let us proceed to facts, for I promised you to establish every assertion which I make by incontrovertible facts. The injurious effects of emanations from grave-yards are demonstrable by showing that healthy persons, exposed to the atmosphere which surrounds these receptacles of the dead, may either contract specific diseases, or suffer those various derangements of the general health, which morbid poisons are known to produce. The effects are varied, both in kind and intensity, from mere headache or nausea to the most violent form of pestilential fever.

We learn from Haller, that a church was infected by the exhalations of a single body twelve years after burial, and that this corpse occasioned a very dangerous disease in a whole convent.

Raulin relates, that sensitive and nervous persons frequently became ill, and fainted, after having been attacked with cadavarous exhalations when walking along a cemetery.

Workmen were digging vaults in the church of St. Eustache, in Paris, which compelled them to displace some bodies, and to place those which came afterwards in a vault which had been long closed. Some children who went to catechism in the place were taken ill there; several adults also were similarly affected. Dr. Ferret, Regent of the Faculty of Paris, was directed to report upon it. He found the respiration of the patients difficult, the

action of the brain disordered, the heart beating irregularly, and, in some, convulsive movements of the arms and legs.

A place, upon which a convent for nuns of St. Génevieve at Paris had been situated, was afterwards built upon and converted into shops. All those who lived in them first, especially very young persons, exhibited nearly the same symptoms as those above mentioned, which were attributed, with justice, to the exhalations of dead bodies interred in this ground.*

Mr. Chadwick, in his report, mentions that in the ease of the predominance of smell from a grave-yard, the immediate consequence ordinarily noted is a headache. A military officer stated to him, that when his men occupied as a barrack a building which opened over a crowded burial-ground in Liverpool, the smell from the ground was at times exceedingly offensive, and that he and his men suffered from dysentery. A gentleman who had resided near that same ground, stated also that he was convinced that his own health, and the health of his children, had suffered from it, and that he had removed to avoid further injury.

Diarrhea and dysentery are frequent effects of the poison. Medical students, while dissecting, are generally attacked at one period or another with diarrhea. Pringle, one of our most celebrated military surgeons, relates the ease of a person attacked by severe dysentery from merely examining some putrid blood.

That typhus fever may be excited by the gases exhaled from the dead, in a concentrated form, we have abundant proof. Every medical man connected in practice with the poorer classes of this Metropolis, knows that typhus fever almost constantly prevails in the dwellings of the poor when crowded round saturated grave-yards. But lest it may be said that in such cases the fever arose from filth, ill ventilation, and bad food, I shall mention a case in which none of these predisposing circumstances existed,—where the fever was clearly traceable to the mephitic exhalation, and to nothing else. We are indebted for the following history to Dr. Copland, who stated it to the Committee:—

"About two years ago," says Dr. Copland, "I was ealled, in the course of my profession, to see a gentleman, advanced in life, well known to many members of the House of Commons, and intimately known to the Speaker. This gentleman one Sunday went into a dissenting chapel, where the principal part of the hearers, as they died, were buried in the ground or vaults underneath. I was called to him on Tuesday evening, and I found him labouring under symptoms of malignant fever; either on that visit or the visit immediately following, on questioning him on the circumstances which could have given rise to this very malignant form of fever, for it was then so

^{*} Vide "Gatherings from Grave-yards," p. 111.

malignant that its fatal issue was evident, he said that he had gone on the Sunday before (this being on the Tuesday afternoon) to this dissenting chapel, and on going up the steps to the chapel he felt a rush of foul air issuing from the grated openings existing on each side of the steps. The effect upon him was instantaneous; it produced a feeling of sinking, with nausea, and so great debility, that he scarcely could get into the chapel. He remained a short time, and finding this feeling increase, he went out, went home, was obliged to go to bed, and there he remained. When I saw him he had, up to the time of my ascertaining the origin of his complaint, slept with his wife; he died eight days afterwards; his wife caught the disease and died in eight days also, having experienced the same symptoms."*

Mr. Hutchinson, surgeon, has recorded a case exactly similar to the one just mentioned. It was a case of highly malignant putrid fever, affecting a girl fourteen years of age, and generated in a church, situate in the centre of a small burial-ground in the city of London, which had been used for the interment of the dead for centuries, and was saturated with the remains of human corpses.

Now follows another case of typhus fever, furnished to me by a most respectable surgeon in Piccadilly.

A young lady, fifteen years of age, at school at —— Square, was walking with other young ladies, accompanied by their school-mistress and governess, when a walking funeral passed them. The young lady immediately exclaimed, "What a dreadful stench there is from that coffin!" She complained of faintness, was sent home, and in two days had a severe attack of typhus.

We have plenty of other examples, which prove the generation of fever by putrid exhalations from the dead body. Take the following:—Mr. J. Irwin, a man whose exertions in this cause have been most praiseworthy, resides in the house, No. 32, Clement's Lane, which overlooks the grave-yard in Portugal Street, a nuisance which receives 1,021 bodies to the acre annually, instead of 136. Mr. Irwin's family had enjoyed good health until they came to reside in that neighbourhood. They have never enjoyed full health since. The wife of one of his lodgers, in comfortable circumstances, was attacked by typhus fever in the house, and removed to the hospital. The husband, who went to visit her, fell ill of the same disease and died in four days. Two other lodgers, named Rosamond, also had fever; the woman recovered, but the husband died and was interred in the grave-yard from which he met his death. I attended Mr. Irwin at this period, his health broken, his spirits depressed; he was fast merging into that low form of fever, of which this locality has furnished so many examples. On looking

^{*} Parliamentary Report, Effect of Interment of Bodies, p. 157.

into the "Green Ground" through the window of his room, I noticed a grave open within a few feet of the house; the sick man replied to my observations, "Ah, that grave is just made for a poor fellow who died in this house, in the room above me; he died of typhus fever, from which his wife has just recovered; they have kept him twelve days, and now they are going to put him under my nose, by way of warning to me."

I am happy to say that Mr. Irwin recovered, and that, from that period to the present, he has laboured diligently and efficiently in denouncing the abomination of intra-mural burial. One of his children, a fine boy six years of age, whom I attended, was cut off in a few days, by perhaps the most malignant form of fever I ever witnessed. This family, be it remarked, were healthy when they went to reside in this pestiferous locality; yet, within six weeks after their change of residence, they were all attacked.†

A fact of this kind, to which I would now direct your attention, is the recent outbreak of fever at Minchinhampton. The circumstances connected with this unfortunate event are most remarkable, and sustain to the fullest extent all that I have advanced on the connexion which exists between grave-yard cmanations and the development of pestilential fever.

Minchinhampton is a small town, containing about 800 inhabitants. It is pleasantly and healthily situate on a declivity; well drained, free from most of the local causes of disease, and has been remarkably exempt from fever. Mr. D. Smith, a respectable surgeon, had practiced in the town for 14 years, without meeting with a single case of typhus fever.

The church and church-yard of Minchinhampton are very old; the latter has served as a burial-ground for the last 500 years, and is consequently densely crowded with dead bodies. In the autumn of 1843 the church was rebuilt, and it became necessary, or was thought expedient, to lower the surface of the gravevard within a foot or two of the remains of those buried. Many bodies were disturbed during this process and re-interred. The earth so removed, of a dark colour,—saturated, in fact, with the products of human putrefaction, was, in a fatal hour, devoted to the purposes of agriculture. About one thousand cart loads were thus employed, some on a new piece of burial-ground, to make the grass grow quickly, some as manure on the neighbouring fields, some in the rector's garden, some in the patron's garden. The seeds of disease were thus widely sown, and the result any man of common sense might have predicted. The diffusion of a morbid poison was soon followed by an outbreak of fever in this previously healthy locality. The family of the rector, and the inhabitants of the street adjoining the church-yard, were the first attacked, and the greatest suffercrs. The rector lost his wife, his daughter, and his gardener. The patron's gardener also,

^{*} Vide "Gatherings from Grave-Yards," p. 152.

[†] Parliamentary Report, Effect of Interment of Bodies,

who had been employed in the unseemly occupation of dressing flower beds with human manure, was attacked. In short, wherever the earth had been taken, fever followed. The children who attended the Sunday-school caught fever as they passed the up-turned surface of the grave-yard, went home, and died; but they did not communicate the disease to those near them, nor did it arise in any who were not exposed to the cause of its development. Mr. Smith informs me that since its commencement seventeen deaths have occurred from fever.

In a communication subsequently received from the above gentleman, he says, "your remarks much confirm my previous suspicions. We have had nearly 200 cases of scarlet fever and measles, with anomalous eruptions, all no doubt from the same cause." Thus you will perceive that the poison that produces typhus fever in the adult engenders measles and scarlatina in the child. I consider this a most important fact, because it proves in the clearest possible manner, that the diseases generally believed to be incidental to childhood, indeed, almost inseparable from it, might be annihilated. Now, so long as burials are permitted within the walls and towns of the empire, so long as the present miserable, immoral, and wretched system is permitted to continue, so long must disease and death, and immeasurable mischiefs, walk hand in hand, destroying in some cases instantly, in others silently and slowly—yet always surely, their too often unconscious victims.

Here is another striking and most remarkable case:-

"We beg (says the Editor of the Somerset Gazette for the month of January, 1847) to call the attention of the authorities and of the inhabitants generally to a circumstance of great importance, and which demands immediate attention. The presence of fever in the town has scarcely ever been remembered before a recent occasion, and we are in possession of a fact which may tend, if not to throw some light upon the cause of that affliction, at least to afford grounds for strong suspicion. At all events, the matter should not be allowed to escape investigation. Public attention is now much occupied with the sanitary condition of Michinhampton. The circumstances to which we allude are similar in character to those which have occurred in that town, but perhaps to a less extent. Like the church-yard of Michinhampton, that of Axminster is a very old and crowded one-not an inch is there to be found untenanted by the decaying remains of humanity, and in a parish containing a population of 3,000 it may be easily supposed that scarcely a week passes without this already too-crowded ground being re-opened for the reception of other bodies. It seems, then, to have been a custom for some time past to apply the superfluous earth taken from these re-opened graves as manure in the neighbouring gardens. The act itself is shocking to our best feelings, but leaving out every consideration of this kind, it surely cannot require the talents of a Dr. Smith to conceive the injurious effects on human health of this exposure, during a burning summer, of a substance so deleteriously impregnated as old church-yard carth must be. We believe the 'authorities' are not cognizant of these proceedings, and we are well aware that there are very few inhabitants of the town in a different position. Nor do we lay blame to any party. No doubt the earth must be got rid of in some way or other; and we do not believe that any one connected with the church-yard would allow any considerations of gain to induce them to dispose of it in a way so prejudicial to health as that which we have described, if they were aware of the consequences. The subject deserves immediate attention. It will be easy to decide what ought to be done, and that decision once arrived at, we have no doubt of its being promptly carried into effect."

In addition to the above facts, I may here quote the following letter:-

"Axminster, March 17, 1847.

"Dear Sir,—A fever of a malignant character has been prevailing here, and it certainly first showed itself soon after the removal of a large quantity of earth from our church-yard, which was sold (as manure) for some neighbouring gardens by the sexton. Our church-yard is much overloaded. There is great difference of opinion among medical men here, but I really cannot help looking at this fact, that our town was in a healthy state; that a large vault is made in the church-yard, by which a large quantity of earth is dug up; this is sold and applied to some neighbouring gardens, shortly after which, a malignant typhus fever rages through the whole town, scarcely a house in which some of the inmates are not infected. Now, one really cannot but believe that the cause may be traced to the circumstance before mentioned. I do not think more than six or cight died, but very few have entirely recovered even now. In haste,

"I remain, dear Sir, yours very faithfully,

"PHILLIP HAYMAN, Surgeon.

"To Geo. Alfd. Walker, Esq."

I have already mentioned to you, that even when a well-known exciting cause of disease exists, it does not always produce its effects on persons exposed to its influence. In like manner, it is not absolutely necessary for a church-yard to be over-crowded in order to act injuriously on the health of those who dwell in its immediate vicinity. We have an illustration of this in certain facts connected with St. George's, Bloomsbury. According to the official report, the condition of this church-yard is comparatively excellent, the annual average of interments to the acre not exceeding 120; yet we have the clearest evidence that the exhalation of the gaseous products from its surface, or from its vaults, has been attended by results the most injurious to the surrounding inhabitants. Mr. Coates, a respectable medical practitioner, residing at No. 43, Hart Street, close to St. George's church, in the spring of the year 1844 noticed the existence of a most disagreeable, and almost insufferable odour; and soon afterwards several members of his own family, and many of his patients who resided in the vicinity of the church-yard, were attacked by putrid fever. Mr. Thomas Taylor, the pupil and assistant of Mr. Coates, suffered dangerously in this way, -so much so, that he was unable to bear even removal to the country before the expiration of three months. Jones, another assistant of Mr. Coates', became so alarmed at the uncomfortable sensations which he experienced, and at the spread of fever, that, if not persuaded

by Mr. Coates, he would have left, not only the house, but the Metropolis altogether. A female servant of Mr. Coates' was seized with low fever, remained ill four or five months, and has never since perfectly recovered her health. Finally, two of Mr. Coates' children and his sister-in-law, then on a visit with him, likewise suffered from a most malignant form of typhus fever, from which, after three months' suffering, the sister-in-law recovered with the greatest possible difficulty. At No. 39, Hart Street, was a juvenile school, containing from twenty to thirty children, and kept by two sisters. Both ladies were attacked by the fever; one was confined for five or six weeks to bed, the other recovered at an earlier period, but their prospects were destroyed by the calamity. The little school was broken up, the children dispersed, and Mr. Coates attended many of them for measles, scarlatina, and other forms of eruptive fever.

A family, named Rummins, residing at No. 46, Museum Street, were also seriously injured from the same cause. Mrs. Rummins, attended by Mr. Coates, had typhoid fever, which confined her to her room during fourteen days. Her two children, aged respectively five and three years, had scarlatina of a malignant character at the same time. Another child, living in the same house, about two years old, had also scarlet fever of a malignant character, with great enlargement of the glands of the neck, the jaw, and those situated under the tongue.

The cause of this extensive spread of fever naturally excited inquiry, and was soon revealed. It came to light that many of the coffins, about 600 in number, contained in the vaults underneath the church, were unsound, that is, incapable of retaining within the lead the products of human decomposition. Nearly 100 coffins were in this condition; 40 were repaired, about 60 bricked up, and many bodies were re-enclosed in new leaden coffins. Six men were engaged in this work; and all, save one, were seriously injured in health. One man was seized with vomiting and looseness, with purging of blood; he died about twelve months since, having at the time prophetically exclaimed that, "he was done for." Another man, named Fox, employed by Mr. Jackson, the plumber, was seized with sickness, trembling, and diarrhæa; he has never been well since, and declared to Mr. Coates that nothing should induce him ever again to undertake a similar employment.

You have now a solution of the cause of sickness and fever which prevailed in St. George's, Bloomsbury, in 1844; it arose from the disturbance of a comparatively small number of human remains; and the evidence which I have adduced from the testimony of Mr. Coates himself, will, I believe, strike you as most decisive of the question.

Mr. Whitby, tailor, now of 21, Bovenden Street, East Road, Hoxton New Town, left Islington some time since to reside in the City. His family, consisting of himself, his wife, and four children, were in perfect health up to their removal. They had not required the attendance of a medical man from their

birth until they had resided from ten to twelve months in the immediate neighbourhood of a city church, whose vaults, containing many dead bodies, were frequently opened for the purpose of ventilation. The health of their children declined gradually; from being most healthy, they became most unhealthy. The medical man was constantly in the house. The son is now a cripple—ruined for life, perfectly unable to fill any situation in consequence of his deformity. The daughter's health, when I saw her some time since, was irremediably lost, and the mother informs me, that she lost a fine boy, whose bowels were diseased from the same cause.

The evidence of Valentine Haycock, a grave-digger at New Bunhill Fields, Dover Road, examined before the Parliamentary Committee, is likewise valu-This unfortunate young man, since cut off in the prime of life, proved that he was constantly ill during the time of his employment as grave-digger. I attended him during some months previous to his death. He repeatedly affirmed in the presence of other medical men who examined him with me, that his occupation had utterly ruined his health. He assured me that when he commenced grave-digging in that ground, that he was in excellent health, and capable of lifting great weights, but that degree by degree his health failed, and when he came under my care he was in confirmed and irremediable The miracle is, that under such constant exposure a man priconsumption. marily in the possession of good health, should have lived so long, not that he was at length cut down. He left his occupation too late, however, and made another victim for another grave-yard. Haycock stated before the Committee, that numbers of persons who attended the funerals of deceased relatives were struck by the exhalations from the carcases there deposited in incredible numbers, and rapidly destroyed. "I have known them," said he, "follow their friends on one Sunday, and brought themselves the next." This was a common remark of the undertakers,—" Dear me, the poor creatures followed a friend here last Sunday, and I am come to bury them this; they followed as well as I followed myself."*

Mr. Barnett, surgeon to the Stepney Union, informs us that the vaults and burial-ground attached to Brunswick Chapel, Limehouse, are much crowded with dead, and from the accounts of individuals residing in the adjoining houses, it would appear that the stench arising therefrom, particularly when a grave happens to be opened during the summer months, is most noxious. In one case it is described to have produced instant nausea and vomiting, and attacks of illness are frequently imputed to it. Some say they have never had a day's good health since they have resided so near the chapel ground, which, I may remark, is about five feet above the level of the sur-

^{*} Parliamentary Report, page 50.

rounding yards, and very muddy, so much so, that pumps are frequently used to expel the water from the vaults into the streets.*

Similar effects are produced wherever the poison is brought to bear in a concentrated form on persons immediately exposed to it.

Putrid emanations from the bodies of animals have produced fever. M. de Lassour gives the history of a malignant epidemie fever, accompanied by violent cholic and dysentery, which attacked the children in a large school near Paris. On inquiry, it was discovered that a great number of cows, destroyed by an epidemie disease then prevalent, had been buried close to the school, and their carcases covered with a slight layer of earth. The fever was confined to the persons in the immediate vicinity of the infected ground, and it ceased as soon as the latter was covered by a large quantity of earth mixed with lime. †

A still more striking example of the pernicious influence of the poison, when furnished in large quantities at a time, has been recorded by Sir James M'Gregor, the present Director General of the Army Medical Department. After the siege of Cuidad Rodrigo, in Spain, no less than 20,000 bodies were interred about the eamp within the period of two or three months. The effect on the health of the soldiers, as you may suppose, was anything but beneficial; for many months afterwards they were attacked by low fevers, by dysentery, and by febrile disorders, which frequently put on a dysenteric character. ‡

Let us take another instance. At Valladolid, during the war in Spain, the palaee of the "Holy Inquisition" was appointed for the barraeks of a British regiment. Under the colonnade was a well, from which water could be drawn into the uppermost stories. This water had a sweetish decayed taste, but for the want of better the soldiers used it both for drinking and cooking. No other regiment in the garrison was so unhealthy, and the prevailing disease was putrid fever, of which there was not the slightest symptom in any of the other regiments. At last the reason was discovered; skeletons were found in the well, and several were observed with pieces of flesh adhering to the bones.§

Miss Crews resided during eight years in the house No. 58, Drury Lane. The house stands in the burying-ground, the wall, in fact, divides the living from the dead. Miss Crews, during the whole term of her residence there, complained of a coppery taste in the mouth, of head-ache, nausea, weariness, and absence of sleep. Her appetite was irregular, capricious, and very deficient. The wall of the house

^{*} Vide Mr. Chadwick's Report.

[†] Mem. de la Soc. Roy. de Medicine (1776).

[‡] Parliamentary Report, Effect of Interment of Bodies, page 156.

Vide Gatherings from Grave-yards, page 159.

on the burying-ground side was always in a moist, filthy, and most offensive condition. Miss Crews always distinguished the smell more particularly after having been out in the open air. It was of a faint, earthy, deadly character. A young person who resided with her during some years was affected in a similar manner. Both these young persons, who have for some time been under my treatment for most serious maladies, I do not hesitate to declare have been slowly poisoned from their residence there, and I very much question whether they will ever recover their health. I may remark, that this place many years since was below the level of the street; now it has an elevation of several feet above it, produced by successive additions of corpses.

Mr. F. Mackrill, whose house, No. 7, abuts upon the burial-ground of St. Mary-le-Strand, in Russell Court, Drury Lane, and who has had to complain repeatedly of a liquid sanics running through and extending up the wall of his house, and over the stairs, from the bodies buried close to it, informed me that on Friday, the 16th October, ult., he saw, in conjunction with Mr. May, who resides in the same house, an old man and another collecting portions of human bones, which they deposited on an old iron tea-tray, and carried out of the grave-yard, doubtless for sale. Mr. Mackrill, his wife, and three children, entered this house in good, firm health. Since they have resided therein, they have never been well. The sewerage is good—unexceptionable, the water-closet being trapped, and the fall excellent.

In every quarter of the globe we find the same effects arising from the same cause. The frightful mortality which so often decimates our troops in foreign climates is generally attributed to the malarious influence of decaying VEGETABLE matter; but there is no doubt that it is often occasioned by putrid exhalations from the ANIMAL body, and I feel convinced that we should have to record a greater number of examples, were they not purposely suppressed from motives of prudence or expediency. We are all too familiar with the mortality of the British troops in Scinde. I have been informed by a brave and distinguished officer, well acquainted with India, who commanded a regiment during the war in Scinde, that he was able clearly to trace a connection between the exhalations from DEAD BODIES and the malignant fever by which our soldiers have so often been rendered powerless for purposes of offence or defence.

The burial-places of the Musselmen at Sukkur, a place that has immolated thousands of our bravest soldiers, are situated on hillocks, some artificial, others formed by nature. These hillocks being above the level and out of the reach of the annual inundations of the river Indus, which overflows the whole country in August and September, (the most deadly periods of the year), have been chosen from time immemorial by the Musselmen sayads (saints) and priests as resting-places for their dead. When the British army first entered Scinde in 1839, Sukkur and the fort of Bukkur were selected by the chief military authorities as depôts for magazine purposes and commissariat stores, and were subsequently

formed into a cantonment. The political agent, Mr. Ross Bell, now dead, was petitioned by the sayads and priests to stop the excavations then going on for the purpose of building the barracks for the soldiers and the bungalows (houses) of the officers. In spite of the most urgent remonstrances the work was proceeded with, and the consequent mortality was frequently instanced by these so-called heathens, as a punishment for the certainly unchristian desecration of their burial-place. Immense numbers of bodies were disturbed and mutilated. The earth being saturated with animal matter, the emanations of course passed off from the upturned and upturning earth into the atmosphere. Vast numbers of tombs and graves were destroyed, and their bricks employed as building material for government and other purposes.

Sukkur is a small town formerly containing probably three or four thousand inhabitants. The principal city approximating to Sukkur is Roré, which is situated on the opposite bank of the Indus, on an elevated, and as circumstances demonstrate, more eligible site for a cantonment, as it is out of the reach of the inundations, is much more salubrious than Sukkur, and was employed as a convalescent station in 1844-5, when her Majesty's 78th Highland regiment was almost annihilated from the pestilential emanations from the soil.

These brave men, who with their wives and children were swept off in hundreds by a most malignant putrid fever, which annihilated existence in a very few hours, were deposited in shallow graves, hurriedly excavated in the Christian burial-ground, outside the cantonment, and some distance from it, yet within reach of the inundations. It frequently happened that the soldiers employed in carrying their dead comrades to their last home, staggered, fell to the ground, and within a few hours were tenants of the same earth themselves.

The following extract of a letter from a correspondent in the 78th regiment, to a friend in Glasgow, dated Hyderabad, January 14, 1845, confirms in part the statements I have made to you:—

"Here we are in Hyderabad, the right wing having arrived about three weeks ago, and the left a few days after us. We came down the Indus in small covered-in boats, the banks of the river being strewn all the way down with our poor fellows. We spent Christmas on the banks of the river; my occupation that day was sewing up one of our company in his bedding, with the assistance of four natives, preparatory to burying him; for, as the lines on Sir J. Moore say, 'No useless coffin enclosed his breast,' so it was with our poor comrades. Since we marched from Kurachee, our loss has been 365 men, 39 women, 132 children, two officers, and one officer's child, making in all 535 souls. There are thirty other men who, the doctor says, will never see India again. The rest of the men are very much improved, and will soon be all right again. Twelve only out of 1,000 have escaped the Sukkur plague, that is, exclusive of women and children. We hope to move to better quarters by the first of March, and to be all ready for field service in a year hence, should it be required."

Now, we have, in my opinion, a clear, easily explicable, cause for the mortality that swept, like the destroying angel, these brave, these lion-hearted, men from the ranks of the living.

The burial-places of which I have spoken, comprising an immense surface of billock and plain, have from time immemorial been employed by the various seets of Musselmen for many miles around as a favoured site for burial. Many thousands of bodies have been deposited there, and I am assured by the gentleman who enables me to bring before you these facts, that the horrible stench and poisonous effluvia proceeding therefrom was, more especially during the evening, most intolerable, oppressive, and disgusting, producing faintness, and an indescribable sensation of oppression and nausea.

HEAT and MOISTURE, as I have already informed you, are the absolute essentials in producing putrefaction, and consequently the two grand agents in climinating the *poisonous gases* and ANIMAL compounds of which I have endeavoured to give you a short but I hope effective history.

Now, the two agents, MOISTURE and HEAT, more especially the latter, exist in Scinde in an unmitigated and irremediable form. Little rain, it is true, falls in Scinde, but the sudden irruption of torrents of water from the upper country, washing the already upturned grave-yard earth, the half exposed bodies, and filling deep and extensive exeavations from which earth had been taken for building purposes, not only carried with it what it met with in its course, but constituted literally a solution of dead bodies.

These pools of human corruption remained some time after the subsidence of the surface water, gave out their fluid material to the thirsty and fissured earth in every direction, whilst the sun, operating on the surface of these stagnant reservoirs, at a temperature ranging from 120 to 130 degrees, produced the most deadly exhalations. Hence it is that an error in judgment is so disastrous in result; hence it is that the lion in the field, the unyielding in battle, must take counsel from the votaries of science, the conservators of health; hence it is that Englishmen who have rushed upon visible danger, who have braved the bullet and the bayonet, who have sternly defied the iron shower or breasted the murderous grape and canister; who have made in far distant lands the name of their country at once great and terrible, have perished miserably—ignobly; have fallen in the prime of their days, victims to a lamentable ignorance, or an utterly mistaken policy.

The views which I have endeavoured to inculeate are, however, making progress, as the following extracts quoted in Allen's Indian Mail, of Sept. 8, 1846, will prove:—

"BURIAL OF THE DEAD.

"MR. EDITOR,—During the present terrible visitation of that pest, cholera, I observe that the native servants and followers earry their dead directly to wind-

ward of the camp, or in the direction of the native town. Surely, Mr. Editor, the townspeople are dying sufficiently fast to find occupation for the old burying-grounds near their own residences; but whether or not, I consider, as many others do, that those dying within the precincts of the camp should be interred to the leeward of it. The unfortunate Europeans dead are so, why not the natives? Another point. The Hindoo followers of the camp are buried so close to the horse-artillery lines that the odour of the consuming remnants of mortality can be distinctly recognized by the dwellers therein. This should not be.

(Signed)

"ONE OF THE LIVING."

And again -

"THE POLICE AND BURYING-GROUNDS.

"Considerable sensation has been created amongst the Mahomedan population for the last day or two, in consequence of the interference of the police with the burying-grounds. There can be no doubt but the removal of the burying-grounds to a distance from human habitations is most desirable; yet, possibly, at a moment like the present, when we are visited by such a calamity, some excuse may present itself for the feeling of discontent manifested by that part of the community who consider their religious rights interfered with. We understand that an appeal has been made to the Governor, and the result is, that the prohibition for the present is not to be enforced. We hope, however, that so soon as the visitation has passed over us, measures will be taken to prevent burials near the town."—IBID.

The Editor of the Kurrachee Advertiser, for July 1, 1846, says -

"DECREASE OF THE DISEASE.

"We are happy to learn that the disease is on the decrease. The dreadful effect of burial so near human habitations is, however, now beginning to manifest itself. The air is perfectly loaded with the pestiferous effluvia of the decomposing, ill-buried, and half-burned dead; and we sincerely trust, that those in authority will now put a stop to practices which must necessarily lead to more sickness.

"Yesterday the effluvia all along the road leading from the Bunder to the camp was almost insupportable; and, again, in nearing camp (the wind setting in from that direction) the air was most offensive."

During the disease upwards of 100 soldiers of the 86th died in three days. In nine days there died 895 Europeans; or, of native or European troops together, 1,410. * * * * * The Advertiser says, that 7,200 inhabitants were cut off, not counting camp followers.

I have spoken of one principal cause of these terrible inflictions; that cause is, the burial of the Dead in the midst of the Living. If further confirmation of these statements be required, you will find it in the *Times* of November 21, 1846, and in the number for September 24, 1846.

The Bombay Times, quoted in Allen's Indian Mail, observes, that "As every dead man must be replaced, and as each European soldier sent out to India costs from 80l. to 100l. ere he has joined his regiment and is fit for service, some idea may be formed of the pecuniary sacrifices which require to be made to supply the casualties occurring in 'Young Golgotha.'" The editor further observes, "That at the healthiest station in Scinde, cholera has in ten days carried off one-fourth of the troops and one-half of the inhabitants, hurrying some 8,000 beings into eternity. This, though an unusually severe manifestation of disease, is not the less periodical in its descents, having afflicted us trienially ever since we set foot in the country. It is singular how little interest the home community feel in relations of this nature, however interesting or important."

The sickness and mortality amongst our troops on certain stations in China have been attributed by many intelligent witnesses to the same cause. At Chusan, the mortality of 1841 was attributed to the bad quality of the water, but persons on the spot were of opinion that it was much aggravated, if not entirely occasioned, by local circumstances connected with the burial of the dead. The Chinese method of interment is extremely inefficient, in a sanatary point of view. The coffin is merely placed on the ground, and over it is constructed a slender tomb, composed of bamboos and matting. On the right of the town of Chusan there is a hill, which the Chinese used as a burial-ground. It was considered necessary to fortify this hill in 1841, and the dead bodies removed from the grave-yard were burned. The stench from the upturning of the bodies and the burning was most intolerable, and the mortality, which I contend may rationally be attributed to this palpable cause, was so great that the intention of fortifying the place was abandoned.

As we extend our inquiries to other quarters of the globe, we obtain additional proofs. Thus, in the end of the year 1841, and beginning of 1842, fever raged violently amongst the European troops quartered at Port Royal, Fort Augusta, up Park Camp, and Stony Hill, situated on the southern side of the island of Jamaica. Stony Hill, situated nine miles from the town of Kingston, up the mountain, had, up to the period of the breaking out of the fever, been considered particularly healthy. The military labourers (natives) could not be induced to make graves in the burial-place; the stench was so overpowering, that they affirmed they would drop dead themselves. They made, however, merely shallow graves, close to the public road, under the drunken excitement of brandy and rum. The lady who furnished me with this account states, that she has seen, during the rainy season, (when this mortality occurred), the earth crack under the influence of the sun's heat, and a smoke issue therefrom, thicker than a London fog. During such periods it was impossible to pass the church-yard in consequence of the intolerable stench; indeed, many persons would go miles out of their way in order to avoid it. There was a forge in the immediate vicinity of this burial-ground, and it was well known that every person who worked, or was in any way employed therein (at that time) were seized with fever, and the majority died! So fatal were the consequences of this proximity to the grave-yard that the forge was shut up.

I may add, the 82nd and 60th regiments suffered most. The former lost five officers, their Lieutenant-Colonel and doctor amongst the number. The latter regiment lost two officers.

As we extend our inquiries to other quarters of the globe we obtain additional proofs. I have already (in a previous Lecture) mentioned the fact of plague having been developed on a particular occasion, near Cairo, by the disturbance of a grave-yard. The Commission sent to Egypt by the French Government in 1828, to inquire into the cause of the plague, were forced to the conclusion, that the development of this dreadful malady mainly depends on the constitution of the GRAVE-YARDS, and on the mode of sepulture employed in that country. The observations made by M. Pariset, President of the Commission, are so interesting and important, so well calculated to confirm the opinions which have been advocated in these Lectures, that I must ask permission to lay them before you at some length.

In ancient Egypt the plague was unknown. Although densely populated, the health of the inhabitants was preserved by strict attention to sanatary regulations. But with time came on change, and that change was in man. The serene climate, the enriching river, the fruitful soil remained; but when the experience of 2,000 years was set at nought; when the precautions previously adopted for preserving the soil from accumulated impurities were neglected; when the sepultural rites of civilized Egypt were exchanged for the modern, but barbarous practices of interment; when the land of mummies became, as it now is, one vast charnel-house, the seed which was sown brought forth its bitter fruit, and from dangerous innovations came the most deadly pestilence.

The plague first appeared in Egypt in the year 542, two hundred years after the change had been made from the ancient to the modern mode of sepulture; and every one at all acquainted with the actual condition of Egypt will at once recognise in the soil more than sufficient to account for the dreadful malady which constantly afflicts the people. Without dwelling on the filth of the habiations and miserable poverty of the inhabitants, the want of drainage, the impure water, and the thousands of animal carcases putrefying under a burning sun, and corrupting the air with noisome exhalations, let us consider the state of the burying-grounds, as described by M. Pariset.

In almost every case the graves are quite superficial. In most of the villages the grave is constructed on the surface of the earth, with a few loose bricks or stones, held together with a little mortar or mud. Each common grave is a long parallellogram, in which the dead bodies are arranged almost naked, and side by

side, like loaves in an oven. At Cairo, Alexandria, and other large towns, a different mode is adopted. A grave, from fifteen to eighteen inches, is dug; here the body is placed, with its face to the east; over the body is thrown a layer of small pebbles some four inches thick, and the grave is then partially covered-in with tiles, which run slantingly up from the bottom to the edge of the exeavation, thus leaving an open space of five or six inches. In many cases the body is merely covered with a dusting of sand. The result of this culpaple neglect is evident. The frail constructions are soon shaken and destroyed by the wind or rain; even the dew itself is enough to wash away the miserable covering of light soil, and the heat soon develops the most noisome exhalations. Millions of insects buz around them all day long, and when saturated with their filthy food, often deposit a portion on the vestments or persons of the passers by. Pestilential buboes, even the plague, has been communicated by this strange species of inoculation.

During the night thousands of hyenas and dogs are employed in devastating these frail receptacles of the dead; and each annual overflowing of the Nile adds immeasurably to the disturbance of the decomposing bodies.

In all the large towns of Egypt the burying-places are intra-mural. In Cairo, M. Pariset counted thirty-five, all surrounded by a dense population, all with superficial graves dilapidated by the wind and rain, and devastated by the dogs. But this is not all; the very houses are receptacles of the dead. The quarter of the town inhabited by the Copts is composed of about 300 houses, divided, like all those in Cairo, by narrow, dirty, ill-ventilated streets, saturated with every variety of putrid exhalations.

Every house contains within it a kind of burying-ground. M. Pariset counted as many as eight superficial vaults in one house, each vault or case containing eighty dead bodies, which were opened every two or three months, for the purpose of receiving new tenants. These vaults are usually in a large court, but M. Pariset saw one which contained thirty bodies immediately underneath the floor of an inhabited room, from which it was separated by nothing but planks. Under the stair-case of five or six steps leading to this horrid abode, were concealed the bodies of eleven children.*

Can we wonder, then, that the inhabitants of this region resemble in appearance the carcases with whom they dwell; can we hesitate to account for the constant development of a pestilence, when we reflect that by day and by night, for twelve centuries, the soil on which Cairo stands, its crowded courts and narrow streets have been inundated by the filthy excretions of animals and of man; that day and night, for centuries, the earth has been imbibing the putrid sanies from the bodies of thousands of animals, permitted to rot over its surface; that day and night, for centuries, it has been imbibing the fluid contents of imperfect cloacæ, and the poisonous exhalations of its half-buried inhabitants, until the sub-soil has become one vast hot-bed of pestilential infection.

^{*} Annales d'Hygiene, t. 6.

Now, the burial-places in this kingdom have little to boast of over those of Egypt. There is this distinction, however, to be drawn. In the latter country, the system employed is at once recognised and permitted. In England, men pay "funcral dues," under the impression that their dead fulfil their destiny—return "ashes to ashes, dust to dust." Whether they gain more by their purchase than a "solemn plausibility," those who have heard these Lectures or perused what I have written, can determine for themselves.

The condition of the burial-places in Ireland seems to be even worse than those in other portions of the United Kingdom, although they are almost universally in a most disgusting and dangerous condition. In the neighbourhood of Castle Island and Ballylongford, in the above country, from the imperfect covering thrown over the recent dead, troops of dogs prey from day to day on the bodies. Violent madness is the result, which has led these rabid animals not only to attack one another, but the cattle in the fields.

Methinks our boasted civilization, expansive as it is, may clothe itself in sackcloth and ashes—it should hide its head for very shame. That man, the image of his God, the heir of immortality, trampled upon during life, hideous in death, should again be made the victim of well-deserved punishment to his survivors, is a fearful reflection for those who see in the present the foreboding of a more terrible future.

That the neglect of proper sanatary regulations with respect to the dead, or the results, perhaps unavoidable, of epidemics which have suddenly swept off vast numbers of human beings, may give rise to widely spreading disease amongst the survivors, we have further proof in what happened after the great plague of London. Within a few months, that is, between the latter end of 1665 and the beginning of 1666, no less than 100,000 bodies of persons destroyed by the plague were hastily committed to the earth, and that, be it remembered, at a time when the sanatary condition of London, in other respects, was anything but satisfactory. For the three following years a putrid or malignant fever prevailed in London, and cut off numbers of those whom the pestilence had spared; and for three years more, subsequent to this latter period, as the water became tainted by the morbific percolations, fevers, accompanied by dysentery, were extremely prevalent.*

Finally, to prove to you not only the danger of exhalations from grave-yards, but the fact which some medical men deny, that the dead body is capable of communicating specific disease, I shall relate what happened during the great plague of Marseilles. During that awful visitation the office of burying the dead became so dangerous, that the free inhabitants soon refused to undertake it. The galley-slaves were then employed. They were sent out in divisions of twenty-six each.

^{*} Parliamentary Report, Effect of Interment of Bodies, p. 157.

The first twenty-six were all attacked in two days; and by the time that 130, or five divisions, had been called out, the slaves thus employed were all either dead or labouring under the plague, so that the Government officers refused to send out any more.*

I trust that sufficient has now been said to prove in the clearest manner that exhalations from the dead are injurious to health, and capable of generating malignant disease, which may, and often does, terminate rapidly in death. This proof I have endeavoured to deduce from a chain of reasoning—from a series of facts—as strong and as conclusive as any that can be brought forward to support propositions which have received the universal consent of mankind.

I have shown you, in the first place, that the inoculation of putrid animal matter, during dissection for example, often gives rise to a putrid disease which terminates in death. I next proved that bodies, before they are interred, may either communicate to the living specific diseases, such as the plague, typhus fever, &c., or cause serious derangement to the health from the ordinary products of decomposition. I then traced the same fatal agency to the dead body after interment, showing that sudden death or grievous maladies have been produced by the poisonous emanations from vaults or open graves; and arriving at what ought to be a last resting-place for the dead—the grave-yard, I demonstrated to you that the emanations from such places are injurious in the highest degree, and that more especially where ignorance, cupidity, or insolent immorality have insulted the remains of the dead, the punishment has in some cases been instant and unmistakable. I proved, beyond the possibility of cavil, that with limited spaces of burial in the midst of an ever increasing population, such necessity must not only exist, but become more urgent every day. The abominations connected with intra-mural sepulture must continue, they must assume a more dangerous and more disgusting character every day, because with a rapidly increasing population we have no means of extending the narrow limits assigned to its defunct integers.

With these broad facts staring us in the face, you will be prepared to believe that the wise and the good in every country have been warm advocates of the only remedy which suggests itself. If it be dangerous, if it give rise to indecent and unchristian abominations to bury the dead in the midst of the living,—if, as has been proved, there are men who have grossly abused the trust reposed in them, abolish the practice at once and for ever; remove your burial-places beyond the walls of your cities and towns, apart from the habitations of man.

The nation that has pledged itself, in the late sessions only, to advance about thirty millions for speculating in railways, should neither snarl over the dead bones of its ancestry, nor wink at practices that poison earth, air, and water, nor permit the bodies of those who pre-decease them to be dismembered and treated

^{*} See History of the Plague of Marseilles and Cyclop. of Pract. Med. Article Plague.

with indignities that would (as I have said and again repeat) disgrace, if not disgust, the savage or the cannibal.

The early Christian emperors, without exception, condemned the custom of interment in cities, and published various edicts against it. From time to time the voices of bishops and other dignitaries of the Catholic Church were raised against the disgusting and deadly custom. Amongst others, the celebrated ordinance of the eloquent and honest Archbishop of Toulouse offers a severe but well merited castigation to those who have made no effort to abolish the custom in this country.

"To secure your docility and compliance," says the Archbishop, "it was necessary that your eyes should be opened to your danger by repeated accidents, sudden deaths, and frequent epidemics. It was necessary that your own wishes, impelled by sad experience, should compel our interference, and that the excess of the evil should call, in a manner, for an excess of precutionary measures."

* * * * * * * *

The learned dignitary thus continues:—"It suffices to enter our churches to be convinced of the baneful effects of the fetid exhalations in them. Cemeteries, instead of being beyond our walls, are among our habitations, and spread a fetid odour even into the neighbouring houses. The very churches have become cemeteries—the burial of Christians in an open place set apart for the purpose, is considered a disgrace; and neither the interruption of the holy offices, occasioned by the repeated interments, nor the smell of the earth, imbued with putrescence, and so often moved, nor the indecent state of the pavement of our churches, which is not even as solid as the public street, nor our repugnance to consign to the house of the Lord the impure bodies of men worn out with vice and crimes, can check the vanity of the great, whose empty titles and escutcheons must be hung on our pillars for the sake of their empty distinctions, or the commonalty, who must ape the great. Death at least should level all men, but its lessons are lost, and the dearest of interests, self-preservation, must yield to the reigning foible. * * * If inhumation around churches is to be allowed, can cities be perfectly salubrious? If priests and laymen, distinguished for piety, are to be buried within, who shall judge of this piety, or who presume to refuse their testimony? If the quality of founder or benefactor is a title, what rate shall fix the privilege? If the right is hereditary, must not time multiply the evil to excess, and will not our churches at length be crowded as now, beyond endurance? If distinctions in ranks are to exist after death, can vanity know any limitation, or judge? If these distinctions are to be procured for money, will not vanity lavish riches to procure them? And would it be proper for the Church to prostitute to wealth an honour only due to such as have been rendered worthy by the grace of God? -**%** * \times Would you insist for this privilege, on account of the standing, the offices, the rank you hold in society? We have every reason to believe that those who have the greatest

right to the distinction will be the least eager to obtain it. Exceptions are odious, and multiply pretences and objections. Who will dare to complain when the law is general, and what law can more justly be general than one that relates to the grave?"*

In 1765, the Parliament of Paris published its celebrated edict for the closure of all cemeteries and church-yards within the city, and for the establishment of eight cemeteries at a distance from the suburbs. This wise example has since then been gradually followed by all the principal States of Europe.

In 1806, the Board of Health of New York declared "that interments of dead bodies within the city ought to be prohibited.";

And, finally, after a protracted struggle on the part of the corruptionists, our own Parliamentary Committee of 1842 having carefully considered the vast mass of facts which I had the honour of submitting to it during fourteen days of gratuitous attendance on my part, came unanimously to the conclusion, "that the nuisance of interments in large towns, and the injury arising to the health of the community from the practice were fully proved.§

To the solemnly recorded opinions of public bodies, we may add the testimony of eminent scientific individuals. To eite a few from amongst the multitude, I may mention to you that Sir Benjamin Brodie, Dr. Chambers, Dr. James Copland, and Dr. Prout, expressed their decided conviction, to the Parliamentary Committee, that grave yard exhalations produce a low fever, which is generally of a putrid or typhoid character. And why should not this be the case? I have shown you by facts of my own collection, many of which are of such positive and unmistakable character, as to defy all jesuitical cavilling, that to the grave-yards of this metropolis have been traced the origin of malignant deadly disease, protracted suffering, and premature death.

The Bishop of London, in his examination, says, "he still must think that the actual evils (which have resulted from the practice of interments in towns, especially in the Metropolis) have been considerably exaggerated."

Now, with great respect for his Lordship's opinion, I would suggest that as it is utterly impossible to calculate the mischiefs resulting from the practice of intra-mural burial, it is as possible to underrate as to overrate them. This view of the question is one which I would most earnestly impress upon you. Remember, that the instances of sudden death, and the more serious forms of injury to health which I have brought before you are only so far valuable as they prove the terrible power of grave-yard and vault poisons when in a concentrated form.

^{*} Gatherings from Grave-yards, page 63, et seq.

[†] Gatherings from Grave-yards, page 77.

[‡] L. C., page 99.

[§] Parliamentary Report, 1842, Effect of Interment of Bodies.

[|] Parliamentary Report, Effect of Interment of Bodies, page 184.

Twelve-thirteenths of every dead body must dissipate, that is, become incorporated with the earth, or pass off in the form of a most offensive and deadly gas, many thousand times the bulk of the body which produces it. It is impossible to prevent these exhalations, which are, more or less, always passing off by day and night into the atmosphere, from entering into our lungs, and consequently corrupting our blood. I insist, therefore, that as they have produced the consequences which I have related to you, that the inevitable result (where sudden death is not induced) must be a gradual lowering of the vitality of every living thing exposed to their diluted influence, or in other and plainer words, they produce disease, discomfort, and lingering death. Who shall pretend that the poisonous exhalations from grave-yards are confined to the source whence they spring. In the West Indies vessels have been infected at a distance of 9,000 feet from the coast.

Who shall then attempt to measure the secret workings of these poisons, when once they have escaped from their producing agency? Who shall trace their consequences in men, women, and children, smitten by them, who, having passed by or been drawn within those centres of infection, vaults or over-gorged grave-yards, like the bird wounded by the fowler, have sought their homes, and become candidates for what are called graves, in earth that has long since become incapable of retaining or absorbing the putrescent dissolution.

I have so often and publicly expressed my opinion on the system of grave-digging in earth utterly unfit for the purpose, that it seems superfluous to repeat it? However, I will once more protest against the deadly practice of turning up ground which is literally supersaturated with human remains—a practice that desecrates the remains of the dead, and destroys the health of the living. A compound mischief, I repeat, is thus perpetrated, irreparable injuries are inflicted on the living, and insults, the most brutal, offered to the dead; whilst the mourners who attend the remains of their deceased friends to these places are always exposed to the most imminent danger, and others, as you have seen, to certain destruction.

An attempt has been made to throw discredit on the facts adduced by us, or rather to invalidate our reasoning, by an allusion to the various effects which result from the respiration of putrid exhalations. It has been said, "if these poisons be as injurious as you say they are, they must produce certain specific effects on the human body. Show us these effects, above all, show us that they are invariable." This is an argument more specious than solid, and easily overthrown.

The action of putrid morbid poisons on the living economy is, as I have shown you, variable, and nothing is better understood by medical men than that the same poison, even when specific, will produce different effects on different individuals. I have adduced irrefragable proofs of these positions. When the poison has passed into the blood it circulates with it through

every organ of the body, and there is no organ or structure which is exempt from its influence.

This is the case with small-pox, typhus fever, the eruptive disorders, measles and scarlatina, and others, which are called specific.

Sometimes the chief force of the disease is expended on the lungs, sometimes on the abdominal organs, sometimes on the head; often it attacks the eye chiefly, producing blindness; at other times, the ear. But even if no particular disease were produced, the deterioration of the air we breathe, by the admixture of such gases, is sufficient to excite and promote the development of various diseases, which but for such agency might have remained dormant.

This fact is admitted on all hands, and of itself is decisive of the question. Why, then, should the dangerous and deadly system, whose consequences are so clearly demonstrable, be longer permitted,—why should we still blindly persist in heaping up in the midst of the living population of this Metropolis, and indeed in all the large towns, and in very many villages of the United Kingdom, the materials for a terrible visitation, which though long mercifully deferred, may, and most probably will, overtake us at last.

In conclusion, I may remark, that although 'the strong and full-grown may live (although they cannot know the pleasures of existence) in a deteriorated atmosphere, the young and weakly perish by thousands. It is a fact well known to botanists, that various delicate plants, especially those of the fern tribe, will not grow in the air of London. It is also well known that in crowded cities one-half of the children born are cut off before they attain the age of five years. The same cause, I am firmly convinced, destroys the tender child as the tender plant.

Children breathe nearly twice as quickly as the adult, the heart beats nearly twice as often; the deleterious atmosphere which they respire is, therefore, presented to their lungs twice as often; their blood receives a double dose of the poison, whilst their powers of resistance are weaker, and their nervous susceptibility is much greater than that of their parents. A child's blood is in a constant state of change,—perhaps more frequently than that of an adult; and for the simple reason, that the body is in a state of perpetual progressive development. This, in conjunction with the circumstances which I have detailed to you, and the inspiration of a specific poison suspended in the lower strata of the atmosphere will, in my opinion, fully account for the fact which I have years since demonstrated, that children are the truest (barometrical) indices of the sanatory condition of crowded neighbourhoods; that the acute exanthemata (namely, searlatina, measles, &c.), the stock diseases of ALL SUCH LOCALITIES, in the present shamefully neglected eondition of the earth's surface and sub-surface, find in them the earliest, the most interesting, and the most suffering victims.*

^{*} Vide "Lancet," Nov. 28, 1843.

Hence would I call on you, not only as Englishmen and as Christians, but as parents, as you love your offspring, as you desire to leave behind those whom God has given to you for the continuance of your race; as you value health and its inappreciable blessings yourselves, to cast from you at once and for ever that prolific cause of premature destruction,—the practice of the interment of the DEAD in the neighbourhood of the LIVING.

END OF THE FOURTH LECTURE.

The following Form of Petition, which may be copied on a sheet of foolseap paper, is recommended by the Committee of the National Society for the Abolition of Burials in Towns. It is advisable that the names and addresses of those signing should be written at length; and the more numerously the petitions are signed the better—although, if the name and address of a single individual be attached, it is admissible for presentation by any Member of the House of Commons. Petitions, if forwarded to the Honorary Secretary, will be entrusted to those Members of the House of Commons who have expressed their concurrence in the objects of the Society. Forms of Petition and every information will be afforded on application to the Secretary:—

To the Honourable the Commons of the United Kingdom of Great Britain and Ireland, in Parliament Assembled.

SHEWETH,

That your Petitioners have, during many years, had just cause for complaint, arising not only from the number, but the overeharged state of the Metropolitan and other burial-places.

That your Petitioners have a firm conviction, that the numerous and ineal-culable evils inseparable from a state of things at once destructive to health, degrading to religion, and insulting to humanity, will never be remedied unless your Honourable House interpose its authority.

That your Petitioners desire to express their unfeigned satisfaction that this national grievance was the subject of inquiry by a Committee of your Honourable House in the year 1842, who reported, that "after a long and patient investigation, your Committee cannot arrive at any other conclusion than that the nuisance of interments in large towns, and the injury arising to the health of the community from the practice, are fully proved." That, from the evidence adduced before the Committee, and many subsequent exposures of the terrible consequences resulting and necessarily arising from the present system of interment, your Petitioners venture to express their earnest desire, that the burial of the dead in the midst of the living may be instantly and for ever prohibited, by the closing of all burial-places in cities and towns, and by the adoption of such measures as may secure the public from the injurious and debasing practices at present existing.

And your Petitioners will ever pray.

NATIONAL SOCIETY

FOR THE

ABOLITION OF BURIALS IN TOWNS,

17, NEW BRIDGE STREET, BLACKFRIARS, LONDON.

(ESTABLISHED 1845).

Committee.

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CHARLES WITT, Esq., Surgeon, Spring Gardens.

JAMES WYATT, Esq., Bedford Times Office, Bedford.

(WITH POWER TO ADD TO THEIR NUMBER).

ADDRESS OF THE SOCIETY.

This Society has been established for the purpose of demonstrating to the public the necessity of speedily abolishing or restricting within the narrowest limits the immoral and pernicious custom of burying in towns.

Although a vast mass of very important facts is on record, a great majority of the public is not yet roused to a sense of its danger. The Society, therefore, proposes by a plain statement of facts to extend the knowledge of the injuries inflicted upon the LIVING, and the insults offered to the DEAD. The Society also will press upon the attention of those who have the power of remedy, first, the actual condition of the receptacles for the dead in the Metropolis; secondly, the disgusting and immoral practices inevitably resulting therefrom; thirdly, the injuries inflicted on the PUBLIC HEALTH by the corruption of the atmosphere from the exhalations of the dead; fourthly, they will direct their attention to the state of the receptacles for the dead in the Provinces.

The Committee have ample reason to believe, from the assurances they have received, that they will meet with the hearty co-operation and assistance of many

who have long taken a deep interest in this most important question, affecting as it does, directly or indirectly, every member of the human family.

The sanatory condition of the people, neglected for centuries, has at length excited some degree of attention. Yet one of the most important subjects connected with the health of the inhabitants of large towns has been unaccountably overlooked. No one presumes to deny the poisonous effects of decaying animal substances; more powerful, more dangerous, more deadly, than vegetable exhalations, they manifest their agency in the production of sudden death—in the development of disease which too often baffles medical skill—and in the slow but certain destruction of those who are more constantly exposed to their influence.

Is it necessary to state that the overcharged grave-yards which exist in the midst of this crowded Metropolis, and in all large towns throughout the empire, are a chief source of these animal exhalations? Is it necessary to reaffirm that the MORAL and PHYSICAL evils connected with the practice of intra-mural sepulture must inevitably continue—so long as we continue to inter unlimited numbers of dead bodies in LIMITED spaces of ground?

It may be demonstrated that an acre of earth is capable of affording decent interment every year to 136 bodies, or thereabouts. In many of the parochial and other burial-grounds, EACH ACRE of land is compelled to receive, ANNUALLY, more than ONE THOUSAND bodies, some even TWO OR THREE THOUSAND EVERY YEAR!

It is manifest that the custom of thus perpetually interring large numbers of bodies in spaces utterly inadequate to receive them must give rise to a process of displacement, in other words, to desecration of what ought to be considered the most sacred of all deposits—the DEAD committed to the custody of the LIVING. That such desecration, accompanied by the most revolting outrages to decency and morality, is of every day occurrence—that bodies are disinterred to make room for others, and then shot as rubbish to fill up a pathway in the streets of London, or an inequality in a field in the suburbs,—that coffins are used by the officials of some grave-yards, and given away by others to the poor as ordinary fuel—that the bones of the dead are made matter of sale and traffic; in a word, that the resting-places of the departed have, by a strange and horrid process, been converted into sources of disgusting profit to careless officials and unprincipled speculators, are statements which admit of no denial; they have been demonstrated beyond a shadow of doubt.

When we reflect that the annual mortality of the United Kingdom falls little short of 700,000, we may form some idea of the extent to which the practices now alluded to must of necessity be followed; and this for the simple reason, that as the appropriated spaces are totally inadequate to the reception of the dead, a constant disturbance of their bodies in every state of decomposition is the inevitable conscquence. It is time that a state of things at once so injurious to Public Health and so disgraceful to our national character should cease.

But to insure reform we must obtain a decided expression of public opinion. The aid, therefore, of the wise, the benevolent, and the good is earnestly solicited in this great work. Feeling that this question comes home to "every man's business and bosom," that it appeals in the strongest possible manner to our sympathies, that the instinct of self-preservation urges us to remove those plaguespots, the GRAVE-YARDS in crowded cities, the Committee of the NATIONAL

SOCIETY FOR THE ABOLITION OF BURIALS IN TOWNS, with the full and confident expectation that the end which they propose to accomplish must ere long be obtained, solicit your assistance and co-operation; for, if indiscriminate mutilation and disturbance of previous deposits, and consequent desecration of the last restingplaces of those who have preceded us are still to be permitted; if the ashes of our fellow-countrymen are entitled to, or obtain too frequently, under the present order of things, no respect; if the ties of relationship and affection, and the best feelings of the heart, are to be outraged by a trading sexton, or a brutal grave-digger; if a system has too long been, and continues to this hour, in operation, which most unequivocally tends to brutalize, to unchristianize, the officials who execute the disgusting work, and the crowds of people exposed to such scenes; if our very beautiful burial-service has been too often disgraced by the acts perpetrated previously or subsequently to its performance,—it is more than time that such an evil were crushed, and for ever! It degrades religion, brings its ministers into contempt, tends to lower the standard of morality, and is a foul blot upon our boasted civilization.

At a very numerous and respectable Meeting held in the Great Room at the Crown and Anchor Tavern, Strand, on Wednesday the 15th of September (BENJAMIN BOND CABBELL, Esq., M.P., F.R.S., in the Chair), the following Resolutions were unanimously adopted:—

- 1. Moved by Mr. G. A. Walker—That the burial of the dead in the midst of the living has in many instances, led to the systematic violation of the feelings of our common humanity; and that this custom has originated and maintained practices which have brought dishonour and disgrace on the national character, degraded religion, corrupted public morals, and inflieted incalculable injury on the public health.—Seconded by Mr. Charles Shaw.
- 2. Moved by Sir C. Aldis—That the evils resulting from intra-mural interments have inercased to an alarming extent; and that a rigid and immediate supervision of burial-places is imperatively demanded; and that the petition now read be adopted; and that the Chairman of this meeting, B. B. Cabbell, Esq., be respectfully requested to present it to the House of Commons, and to support the prayer thereof.—Seconded by Mr. Stevens.
- 3. Moved by Mr. G. Ross—That the disinterested exertions, the sacrifice of time and money, and the overwhelming evidence brought to bear on society by G. A. Walker, Esq., (who has for years stood almost alone in his labours on this subject) entitle him and the National Society for the Abolition of Burials in Towns to our sincerest respect and gratitude, and we pledge ourselves to render them our unbounded support, until the pestilential and disgusting system of burying the dead in the midst of the living shall be abolished—Seconded by Mr. Richard Taylor.
- 4. Moved by Mr. J. Rogers—That, for the purposes of carrying out the objects of the Petition, and of obtaining full and legislative support, a fund be immediately raised by subscriptions and donations, which will be received by the Honorary Secretary, Mr. Charles James Thicke, 17, New Bridge Street; by any Member of the Committee; and by the following Bankers:—Messrs. Coutts & Co., Strand; Messrs. Masterman, Peters, Mildred, & Co., 35, Nieholas Lane; Messrs. Spooner, Attwood, & Co., Graecehurch Street; and the Commercial Bank, Lothbury.—Seconded by Mr. Joseph George.

A List of Donations and Subscriptions will shortly be announced.